# THE LEMNISCATE OF TIME

A Geometric Meditation on Eternity

and Temporal Succession

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*(Leopoldo Enrique)*

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# DEDICATION

*To*

My grandfather Leopoldo

*the first person who talked to me about God*

My grandmother Salvadora

*the person who taught me to pray before going to bed*

My brothers

Francisco, Danilo, Ana, Geysell, Lester, Ivan Danilo, and Luis

My uncles

*who were part of my education, academically and at home*

Dear Father Vasquez, S.J.

*my first catechist*

My friend Jose Talavera

*my first and only audience when we were little kids—*

*I used to read to him The Divine Comedy*

The Salesian Community in Granada

*where I was formed as a Salesian student*

And to my fellow students of

Colegio Salesiano, INDO, and Colegio Integral Italia

—

*In each of you, I first glimpsed the lemniscate—*

*eternity breaking into the present moment.*

# THE LEMNISCATE OF TIME

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## On Bilingual Publication and Open Access

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The decision to publish bilingually reflects a desire to serve both Anglo-American philosophical discourse and the rich tradition of Hispanic Catholic theology. Reflections on time, eternity, and redemption should not be limited by language where they may benefit the wider Church.

Open access likewise reflects a methodological conviction: speculative theological work should remain available for critique, development, and dialogue. If these ideas prove fruitful, they may be refined through engagement. If they prove inadequate, that too serves the search for truth.

*In this spirit, the framework is offered not as proprietary theory but as a collaborative contribution—open to correction, expansion, or supersession.*

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## PREFACE

### A Note on Origins and Method

"Grandpa, where did God come from?"

Before there were theories of time, before metaphysics, before geometry, there was this question.

I did not know then that this simple question would follow me for decades.

This work emerged not from academic training but from sustained personal meditation—years of contemplation on patterns observed across operations, systems, liturgy, and lived temporal experience. I am not a professional philosopher or theologian. I am an Airport Operations employee at Los Angeles International Airport, specializing in operational research and optimization. My daily work involves recognizing patterns in complex systems: staffing cycles, flight schedules, passenger flows, seasonal recurrences.

Somewhere in the midst of analyzing these temporal patterns, a question began to form: *What if time itself follows a pattern we can barely perceive because we're inside it?*

The question refused to quiet. It led me to Augustine's Confessions, to Boethius on eternity, to Scripture's descriptions of creation and redemption, to the Church's teaching on resurrection and renewal. It also led me to observe more carefully the computational systems I work with— how machine learning algorithms iterate through data, how optimization converges through repeated return, how memory persists as structure even in supposedly "memoryless" models.

Over several years, a framework began to take shape. I came to imagine time not simply as a line moving endlessly forward, but as possessing a deeper structure—one in which past and future relate more intimately than linear succession suggests. The image that eventually presented itself was the lemniscate, the mathematical curve traced in the form of an infinity symbol (∞).

What began as an intuitive picture gradually unfolded into theological reflection: humanity’s experience of time seemed altered by the Fall, while Christ’s Incarnation and Paschal Mystery appeared as a decisive intersection within that structure—an opening through which temporal exile might again touch eternal presence.

This monograph represents my attempt to articulate that framework systematically, offering it not as proven doctrine but as *speculative grammar*—a heuristic structure that may help us see familiar truths from a new angle. The lemniscate serves here as a conceptual tool for reflection, not as a metaphysical claim about reality's ultimate structure.

**On Method and Humility**

I write as a Catholic, standing within a tradition that has contemplated time and eternity for two millennia. The Church Fathers, medieval scholastics, and modern theologians have explored these questions with far greater learning than I possess. I do not claim to surpass them but to extend their work through the particular lens of my experience and reflection.

My method is contemplative rather than polemical. I am not arguing against established science, nor am I forcing theology into empirical claims. Instead, I am exploring the metaphysical possibilities suggested by bringing together several streams of thought:

- **Theology:** What Scripture and Tradition teach about Creation, Fall, Incarnation, and Redemption

- **Philosophy:** Classical questions about time, causality, and eternity

- **Physics:** Contemporary cosmology, thermodynamics, and the nature of temporal processes

- **Computation:** How learning systems represent history, iterate toward convergence, and exhibit temporal structure

I approach each domain with respect for its proper scope and methods. Physics describes what we observe within temporal succession. Theology contemplates the relationship between time and eternity. Philosophy asks what both might reveal about the nature of reality. Computation offers surprising parallels to ancient wisdom.

The lemniscate theory does not claim to replace any of these. It offers a speculative framework for how they might relate—a way of holding them together that preserves the truth of each while suggesting connections between them.

Where I venture interpretations, I mark them as such. Where I extend beyond established teaching, I acknowledge the speculative nature of the claim. Where I ask questions that remain open, I invite dialogue rather than demanding assent.

This is not a work of systematic theology in the formal sense. It is an extended meditation—disciplined by Catholic orthodoxy, informed by multiple domains of knowledge, and offered humbly as a contribution to ongoing conversation about time, eternity, and redemption.

**What This Work Proposes**

The core claims are these:

**1.** This work proposes that temporal succession may be contemplated through the geometric analogy of a lemniscate—a structured continuity in which past and future are not merely sequential but relationally configured within a single temporal horizon.

This is not merely poetic imagery. The lemniscate is a precise mathematical curve with specific properties. I propose it as a heuristic model for reflecting on temporal structure, one that seeks to illuminate recurring patterns in history, the intuition that "what has been will be again" (Ecclesiastes 1:9), and the experience of temporal succession as movement through a bounded rather than infinite space.

**2.** The Fall may be understood as altering humanity's relationship to temporal existence.

Christian tradition often describes humanity as originally ordered toward participation in God's eternal life. Sequential causality, the experience of being trapped between past and future, the anxiety of temporal succession—these may be understood as consequences of the Fall rather than original features of creation. The model imagines the lemniscate structure as enduring, while our mode of traversing it changed when we lost access to the eternal present that grounds it.

**3.** The Incarnation may be contemplated not as God becoming merely one more event within the sequence of history, but as eternity entering temporal existence without ceasing to transcend it. In Christ, divine life assumes human nature while remaining unconfined by the succession that governs creaturely experience.

The Paschal Mystery then reveals the decisive depth of that entrance. At the Cross, sin's past, suffering's present, and resurrection's future converge in a single redemptive act. What unfolds historically also opens eternally. In this way, Christ's death and rising may be understood as inaugurating passage from wounded temporality into restored participation in the eternal presence of God.

**4.** The Church understands the sacraments as privileged participations in the crossing point while we remain in temporal succession.

Baptism, Eucharist, Reconciliation—these are not merely symbolic commemorations. The Church's sacramental theology envisions them as genuine intersections with the eternal dimension that Christ opened. Through them, we may be understood as tasting the eternal present we lost in the Fall and will fully inhabit in the resurrection.

**5.** Eschatological hope is about *renewal* not replacement.

Revelation 21:5 declares "I make all things new" (Greek: Kaina, renewed)—not "I make new things" (Nea, new in origin). This distinction is crucial. God does not discard creation and start over. He renews the same structure, transforms the same matter, restores what was bent. The lemniscate is eternal. What changes is our relationship to it.

These five claims form the skeleton of the framework. The chapters that follow flesh them out, explore their implications, address objections, and show how they illuminate questions in theology, philosophy, and science.

**A Personal Word**

I write this as someone who spends his days optimizing staffing schedules and analyzing flight patterns. I am not sequestered in a monastery or isolated in an academic office. I work in a noisy, chaotic environment where the temporal patterns I theorize about are the daily realities I navigate.

Perhaps that is exactly the right vantage point. Perhaps the person best positioned to see time's structure is someone who must constantly work *within* temporal constraints while also recognizing their patterns from a slightly removed perspective.

The lemniscate theory came to me not while reading scholarly books but while watching the same operational problems recur year after year, the same staffing needs resurface with seasonal regularity, the same inefficiencies persist despite "new" solutions that turn out to be old wisdom rediscovered. It came from the liturgical year cycling through Advent, Christmas, Lent, Easter, Ordinary Time—the same readings, the same prayers, yet somehow each return bringing deeper understanding.

It came from the experience of trying to pray while rushing between past regret and future anxiety, barely able to inhabit the present moment. And it came from the hope, the

profound Catholic hope—that this fallen mode of existence is not final, that Christ has opened a way through, that what was fractured may be healed, that all things will be made new.

This work is my attempt to articulate what emerged through years of contemplation—not in isolation from the Church's wisdom, but within it, and under its judgment. What I have glimpsed may be partial, imperfect, and in need of correction. Yet it seemed worth offering, if only as one small window into a greater mystery that no single perspective can exhaust.

**How This Work Should Be Read**

This work is neither catechism nor dogmatic theology. It proposes no new doctrine and binds no conscience. A reader could set aside every geometric image in these pages and remain fully within the faith of the Church.

The lemniscate is offered simply as a contemplative aid—a way of imagining relationships between mysteries already confessed: Creation, Fall, Incarnation, Sacrament, Resurrection, Eternity. It belongs to the tradition of theological imagination that has long employed images, analogies, and symbolic language to illuminate revealed truth.

Some readers may find the imagery clarifying. Others may not. Both responses are legitimate.

If the framework helps illuminate how Christ's once-for-all work remains present, how prayer spans temporal distance, or how ordinary moments open toward eternal significance, then it has served its purpose. If it distracts or overcomplicates, it may be set aside without loss.

The Church already possesses everything necessary for salvation: Scripture, sacrament, creed, and communion. This work simply attempts to contemplate those treasures from a particular angle.

**A Work for Certain Readers**

This framework may be especially helpful for readers who:

wrestle intellectually with the relationship between time and eternity

wonder how past events become sacramentally present

sense tension between scientific understanding and devotional life

are drawn to theological reflection through imagery

For others, simpler language will remain preferable. The saints reached holiness without metaphysical models. The grandmother praying her rosary grasps eternity more deeply than diagrams can teach. This work honors that reality.

**Read With Freedom**

Read with freedom. Borrow what helps. Discard what does not.

The Church has always permitted theological imagination where it remains obedient to revelation. Icons, hymns, poetry, and analogies have long served contemplation without demanding assent. The lemniscate belongs to that family—closer to sacred art than systematic theology.

**The Proper Outcome**

If this work leaves you more fascinated by geometry, it has failed.

If it leaves you more aware of Christ’s nearness in the present moment, it has succeeded.

If it leads to argument alone, it has missed its aim.

If it leads to prayer, silence, or renewed love for the liturgy, then the speculation has done its work and may quietly recede.

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February,2026

# PART I FOUNDATION

## CHAPTER 1

### Introduction: Why Linear Time Fails

We experience time as relentless forward motion—past receding behind us, future approaching ahead, present slipping away even as we try to grasp it. This intuition runs so deep that questioning it feels absurd. Of course time moves in one direction. Of course the past is gone, and the future has not arrived. Of course we can never return to what was or anticipate what will be except through memory and expectation.

Yet the same human beings who experience time as linear progression also recognize patterns that seem to contradict that experience. "History repeats itself," we say. "What has been will be again." We notice cycles in nature, seasons returning, generations succeeding one another, civilizations rising and falling in recognizable patterns. We observe recurrence in our personal lives—the same struggles resurfacing despite our resolve, the same wisdom needing to be relearned, the same mistakes recurring despite our best efforts to avoid them.

Scripture itself attests to this tension. Ecclesiastes declares: "What has been will be again, what has been done will be done again; there is nothing new under the sun" (1:9). Yet Revelation promises: "Behold, I make all things new" (21:5). Is history cyclical or progressive? Does time loop or advance? Are we trapped in recurrence or moving toward genuine novelty?

Perhaps the question itself is malformed. Perhaps time is neither purely linear nor purely cyclical, but something more subtle—a structure that accommodates both progression and return, both novelty and recurrence, both the irreversibility of entropy and the recurring patterns we observe throughout creation.

This work proposes such a structure. I call it *the lemniscate theory of time*. The framework suggests that time may be fruitfully imagined not as a line extending infinitely forward, but as a self-referential loop in which past and future curve back toward each other, meeting at a crossing point where temporal succession intersects with eternal presence.

**The Intuitive Appeal of Linear Time**

The linear model of time appears self-evident. We remember the past but cannot change it. We anticipate the future but cannot know it certainly. We experience the present as a knife-edge dividing what was from what will be. This suggests an arrow—a directed progression from earlier to later, from cause to effect, from origin to destination.

Physics reinforces this intuition. The Second Law of Thermodynamics establishes that entropy increases in closed systems—disorder accumulates, energy dissipates, systems run down. This gives time a direction: the arrow points from order toward disorder, from concentrated energy toward diffusion, from structure toward chaos. We can distinguish past from future by examining which state exhibits higher entropy.

Historical consciousness also favors linearity. Events seem to occur once and only once. The Roman Empire fell in the fifth century; it will not fall again. Christ was crucified under Pontius Pilate; this event is unrepeatable. We move forward through history, accumulating knowledge, developing technology, progressing (or regressing) morally and politically. Even if civilizations rise and fall, each rise and fall appears to be a unique occurrence, not a literal repetition.

Linear time also aligns with certain theological commitments. Creation has a beginning (Genesis 1:1). History moves toward an end. Between creation and consummation, God acts decisively in unique moments, the Exodus, the Incarnation, the Crucifixion and Resurrection, Pentecost. Salvation history appears to be a directed narrative, not an endless cycle.

Given these considerations—phenomenological, physical, historical, and theological—why question the linear model at all?

## Where Linear Time Proves Inadequate

Despite its intuitive appeal, the linear model struggles to account for several persistent features of temporal experience and theological reflection.

## Recurring Patterns in History and Nature

Recurring patterns are not limited to natural cycles but appear vividly within human history. The same moral crises resurface generation after generation: economic systems oscillate between abundance and collapse, political orders swing between centralization and fragmentation, cultural movements alternate between reverence for tradition and rebellion against it.

St. Augustine recognized this recurrence in the fifth century, observing that the same virtues and vices manifest across different eras, suggesting that human nature confronts similar trials regardless of historical setting.

Earlier still, St. Cyprian of Carthage, writing to Donatus in the third century, offered a sweeping moral portrait of Roman society marked by violence, spectacle, corruption, and spiritual disintegration.

Writing to Donatus, St. Cyprian described a world “where wars divide nations, blood flows in torrents, and public spectacles turn killing into entertainment.” His lament could easily be mistaken for commentary on modern civilization.

His lament reads strikingly contemporary. Though separated from us by nearly two millennia, the disorders he described—public fascination with brutality, legal corruption, economic exploitation, and moral inversion—remain painfully recognizable.

Such testimony suggests that history does not merely progress linearly but revisits familiar moral terrains. The recurrence of human patterns across centuries hints at structural continuity within temporal experience, a rhythm of return that the lemniscate framework seeks to contemplate rather than merely describe.

Nature exhibits even clearer recurrence. Seasons cycle. Planetary orbits return. Biological life follows generational patterns—birth, growth, reproduction, death, rebirth. While no two springs are identical, the pattern of spring itself returns reliably. While no individual lives twice, the pattern of life repeating across generations appears fundamental to creation's structure.

If time were purely linear—a one-directional arrow from past to future—these patterns would be coincidental. But their persistence and regularity may suggest something deeper: perhaps temporal structure itself accommodates return in ways the linear model cannot fully capture.

**Paradoxes of Causality**

The chicken-egg paradox exemplifies a category of problems that perplex linear thinking. If every chicken comes from an egg and every egg comes from a chicken, which came first? The question assumes temporal priority— one must

precede the other. But if both require the other for existence, linear causality generates infinite regress with no satisfactory resolution.

Similar paradoxes appear throughout philosophy and science. What caused the Big Bang if time itself begins at the Big Bang? How did life originate if life requires preexisting life? How can something come from nothing if causal chains extend infinitely backward? These are not merely intellectual puzzles but indicators that linear causality may be inadequate as a comprehensive framework for understanding origins and existence.

**Prophecy and Foreknowledge**

Christianity affirms that God knows the future with certainty and that prophets sometimes receive glimpses of what has not yet occurred temporally. But if the future does not yet exist—if it is purely potential rather than actual—how can it be known? Knowledge requires an object; we cannot know what is not.

Linear time, strictly construed, makes divine foreknowledge paradoxical. If God exists "before" creation and time unfolds sequentially forward, then even God would have to "wait" for future events to become actual before knowing them definitively. Classical theology rejects this, affirming instead that God's knowledge is eternal—encompassing past, present, and future simultaneously. But this suggests that time's apparent linearity may be perspectival rather than absolute.

**Liturgical and Sacramental Experience**

The Church's liturgical year cycles through Advent, Christmas, Lent, Easter, and Ordinary Time—the same seasons, the same readings, the same prayers recurring annually. Yet Catholic theology insists that genuine participation in these mysteries occurs, not mere commemoration. The Eucharist makes present the one sacrifice of Christ, not as repetition but as participation across temporal boundaries.

How can the same event be present at multiple temporal locations? How can the Mass celebrated today be the same sacrifice offered on Calvary two thousand years ago? Linear time struggles to accommodate this. If past events are simply gone—displaced by the present which will itself be displaced by the future—then sacramental presence becomes incoherent. But if time has a structure that allows multiple temporal moments to intersect with one eternal reality, sacramental theology makes sense.

**The Experience of Personal Return**

Anyone engaged in sustained spiritual practice recognizes the phenomenon of returning to the same struggles, the same insights, the same questions at progressively deeper levels. You read Scripture as a child and encounter one meaning; you return as an adult and find layers you had not previously perceived. You confess the same sins repeatedly, yet each confession (ideally) deepens your understanding of both the sin and God's mercy.

This is not mere repetition but spiral—a return that brings you back to familiar territory from a different vantage point. Linear time cannot fully account for this. If we

simply move forward, why do we keep encountering the same material? Yet if we are literally cycling, why does our understanding deepen rather than stagnate? The structure of temporal experience seems to involve both progression and return in ways linear models fail to capture.

**The Lemniscate Proposal: A Heuristic Response**

This work proposes that these difficulties—recurring patterns, causal paradoxes, prophetic foreknowledge, sacramental presence, and experiential return—may appear differently when time is envisioned not as a line but as a lemniscate.

If we imagine temporal succession as movement along the lemniscate, several intriguing possibilities emerge:

- **The future is near the past.** As the loop curves back on itself, what lies ahead in one direction approaches what lies behind in the other. This may illuminate why history appears to repeat—not as identical recurrence but as structural return.

- **The crossing point is unique.** The lemniscate has one location where the two loops intersect. This may serve as a heuristic image for the intersection of time and eternity, the threshold where temporal succession meets eternal presence.

- **The loop is bounded yet infinite in traversal.** One can move along the curve indefinitely without reaching an edge, yet the total space occupied is finite. This may suggest a

way to hold together the boundedness of creation with the inexhaustibility of temporal experience.

**- Both directions are valid.** Unlike a line with a single forward direction, the lemniscate accommodates movement in either orientation around the loop. This may illuminate the tension between determinism (viewing from one perspective) and freedom (viewing from another).

To be clear: this framework is not offered as proven metaphysical truth but as *speculative grammar*—a heuristic tool for organizing reflection on time, eternity, and redemption. The lemniscate serves as a conceptual lens through which familiar Christian doctrines may be viewed from a fresh angle, inviting new insights while remaining faithful to established teaching.

**On the Legitimacy of Images and Models in Theology**

Christian theology has long relied on images, analogies, and conceptual models in order to approach realities that exceed direct comprehension. From Augustine's psychological analogies for the Trinity to Aquinas's careful account of analogical language, theological understanding proceeds not by univocal description but by illuminated approximation. Such models do not claim to capture divine reality exhaustively; rather, they serve as intellectual instruments that orient thought, clarify relations, and render mysteries more thinkable without dissolving them.

The lemniscate proposed in this study is offered in precisely this spirit. It is not introduced as a physical diagram of the universe, nor as a replacement for scientific accounts of cosmology. It functions as a heuristic image: a way of visualizing how recurrence,

participation, memory, and transformation may be related within Christian reflection on time and eternity. Its value lies not in explanatory finality but in its capacity to stimulate deeper inquiry, invite dialogue, and perhaps illuminate patterns already intuited within Scripture, liturgy, and spiritual experience.

If the model succeeds, it will do so not by closing debate but by opening new avenues for thought.

**What This Work Will Explore**

The chapters that follow develop this framework systematically, examining its implications for theology, philosophy, and the integration of faith with contemporary scientific understanding.

**Part I** establishes the structure of the lemniscate model, exploring what it means to envision time as curved rather than linear, how this relates to classical debates between presentism and eternalism, and what geometric properties of the curve might illuminate temporal experience.

**Part II** considers the theological narrative of Fall and redemption through this lens. How might the Fall be understood as altering humanity's relationship to temporal existence? How can Christ's Incarnation be envisioned as eternity intersecting the temporal loop? What does it mean to speak of a "crossing point" where time and eternity meet? How do the sacraments function as repeated access to this threshold?

**Part III** examines specific implications: the resolution of ancient paradoxes like the chicken-egg problem, the reconciliation of evolution with creation theology, the challenge to Markovian assumptions in decision theory, and the proper understanding of eschatological hope as renewal rather than replacement.

**Part IV** addresses objections from philosophy, theology, and science, demonstrating that the lemniscate framework does not contradict established truths in these domains but rather offers a way of relating them that preserves the integrity of each while suggesting fruitful connections between them.

Throughout, the tone remains contemplative rather than polemical. This work does not claim to overturn established doctrine or refute contemporary science. It invites consideration of whether a different imaginative structure—one that honors both the linearity we experience and the recurrence we observe—might illumine truths we already know in ways that deepen understanding.

**A Roadmap of the Journey**

The path ahead moves from structure to event to implication to integration.

We begin with geometry, what is the lemniscate, and how might it function as a model for temporal structure? We explore time as experienced from within (sequential, irreversible, anxious) versus time as understood from the perspective of eternity (simultaneous, complete, peaceful).

We then turn to salvation history, how does the narrative of the Fall, Incarnation, and redemption appear when viewed through this framework? What does it mean to say that the Fall may be understood as introducing a fracture in humanity's experience of time? How can the Incarnation be envisioned as healing that fracture by opening a passage through the crossing point?

From there we examine concrete implications: paradoxes that dissolve, theological tensions that ease, interdisciplinary conversations that become possible when this heuristic structure is employed.

Finally, we engage objections honestly, acknowledging the framework's limitations while defending its coherence and fruitfulness within its proper scope as speculative theology.

The goal is not to prove *the lemniscate theory* correct in some final sense, but to demonstrate its utility as a contemplative tool, a lens through which the mysteries of time, eternity, and redemption may be abundantly explored by those willing to think imaginatively within the bounds of orthodoxy.

If the framework proves illuminating, it will have served its purpose. If it invites critique that sharpens thinking, that too is valuable. If it sparks better formulations by others who see further, so much the better.

The work is offered in the spirit of Anselm's fides quaerens intellectum —faith seeking understanding. We begin with the truths revealed in Scripture and affirmed by the Church, then ask: how might we think about these truths in

ways that deepen appreciation for their coherence and beauty?

The lemniscate offers one possible answer to that question. Whether it is the best answer, or merely a useful provocation toward better answers, remains to be seen.

If linear succession cannot adequately account for recurrence, participation, and the strange simultaneity implied in sacramental theology, then the difficulty may not lie in isolated events but in the structure through which events are experienced.

We may require not merely additional explanations within the linear model, but an alternative framework capable of holding progression and return together without contradiction. The next chapter proposes such a structure, not as doctrine, nor as physical cosmology, but as a contemplative geometry through which the relationship between time and eternity may be more fruitfully imagined.

Let us proceed, then, with both confidence and humility, trusting that even imperfect efforts to understand time and eternity honor the God who made all things and makes all things new.

## CHAPTER 2

### The Lemniscate Model

The previous chapter examined the inadequacies of linear temporality as experienced from within succession, its difficulty accounting for recurrence, sacramental simultaneity, and prophetic foreknowledge. We now turn from phenomenology to structure. Rather than further analyzing the experience of time, we ask whether an alternative geometric model might illuminate these tensions from a different vantage.

Consider a different structure, the lemniscate, not an arbitrary poetic image but a precise mathematical curve with well-defined properties. Named from the Latin lemniscus (ribbon), it traces the shape of a figure-eight or infinity symbol (∞). The curve has been studied in mathematics since the seventeenth century, appearing in the work of Jacob Bernoulli and later mathematicians exploring algebraic geometry.

In mathematical terms, the lemniscate is not merely symbolic but formally defined. The Bernoulli lemniscate can be expressed in Cartesian coordinates by the equation $(x^2 + y^2)^2 = a^2(x^2 - y^2)$, and in polar form as $r^2 = a^2 \cos(2\theta)$. These formulations describe a closed, symmetric curve intersecting at a single origin point where both loops meet.

The purpose of invoking these coordinates is not technical analysis but conceptual clarity. The curve’s self-intersection, symmetry, and dual structure provide a geometric vocabulary capable of illuminating relationships that linear temporality leaves obscure.

Why propose this particular curve as a heuristic for reflecting on temporal structure? Not because time "is" literally a lemniscate in physical space, but because the curve's geometric properties may illuminate features of temporal experience and theological reflection that linear models struggle to accommodate.

Christian theology has consistently employed geometric and mathematical imagery when approaching mysteries that exceed direct comprehension. Augustine used triangular relationships to contemplate the Trinity. Anselm spoke of degrees of being on an ascending scale. Dante organized the afterlife in concentric circles. Thomas Aquinas developed elaborate hierarchies and proportions. These thinkers did not claim geometric identity with divine reality but found that spatial and mathematical analogies oriented thought productively, revealing relationships and proportions that discursive language alone could not capture.

The lemniscate serves in precisely this tradition, what medieval theologians might have called an *analogia*—not identity but instructive similarity, a conceptual tool that may sharpen contemplation without claiming to exhaust mystery.

## Geometric Properties and Temporal Reflection

Several features of the lemniscate curve invite theological and philosophical consideration when employed as a contemplative tool for thinking about time.

### Closure Without Termination

The lemniscate is a closed curve—it has no endpoints. One can traverse it indefinitely without reaching a boundary. Yet unlike an infinite line extending forever in both directions, the lemniscate occupies finite space. It is bounded yet inexhaustible in traversal.

This may illuminate a theological paradox: creation is finite (bounded by God's creative act), yet temporal experience seems endless. We never "run out" of time while living, yet the cosmos is not infinite in extent. The lemniscate may offer a geometric image for how something can be both bounded (as creation must be, since only God is infinite) and inexhaustible in experience (since we traverse time without encountering edges).

Classical theology distinguishes God's eternity (which has no beginning or end and exists all at once) from *aeviternity*—the mode of existence proper to angels and glorified souls, which has beginning but no end. The lemniscate might be contemplated as offering an image for yet another mode: *sempiternity*, the endless succession of moments that characterizes created temporal existence. Finite in total structure, infinite in possible traversal.

**Self-Intersection at a Single Point**

The defining feature of the lemniscate is that its two loops intersect at exactly one point—the crossing where the curve passes through itself. This is not a region or a gradient but a precise locus where both arcs converge.

Geometrically, this point functions as the origin from which the curve's symmetry unfolds. Structurally, it is the only location where the two movements of the figure meet without collapsing into one another.

Theologically contemplated, this unique feature suggests a threshold within temporal existence itself. If temporal life is imagined as movement along the curve, the crossing point may represent the singular site where past and future converge—where what has been and what will be encounter what eternally is.

The model does not claim that such an intersection is physically locatable within historical sequence. Rather, it offers a contemplative image: that within temporal succession there exists a divinely opened point of encounter where eternity touches time without being absorbed into it.

Christian theology has long contemplated such threshold. The Incarnation may be understood as the decisive intersection of eternity with time—not one event among many but the singular point where the eternal Word enters temporal succession without being contained by it. The crossing point in the lemniscate model serves as a geometric image for this theological claim: there is one

moment, one threshold, one intersection where time and eternity meet decisively.

To be clear: the model does not claim that the Incarnation literally occurred at a geometric point on a curve. Rather, the curve's mathematical property (unique self-intersection) provides a heuristic for reflecting on the Incarnation's theological uniqueness (unique intersection of eternal and temporal).

**Symmetry and Dual Orientation**

The lemniscate exhibits bilateral symmetry—the two loops mirror each other across both axes. Additionally, the curve can be traversed in either direction. Unlike a line with a single forward orientation determined by entropy or causality, the lemniscate allows movement in both directions around the loop.

This might offer an image for several theological and philosophical tensions:

**Past and Future as Symmetric but Not Identical**: In one sense, past and future are symmetric—both are equally removed from the present, both involve temporal distance from the crossing point. Yet they are not identical: we remember the past but anticipate the future; the past is fixed while the future remains open. The lemniscate's symmetry-with-distinction may serve as a geometric analogy for this relationship.

**Determinism and Freedom**: Viewed from one perspective (say, from eternity, seeing the entire curve at once), all moments exist simultaneously, suggesting determinism. Viewed from within (traversing the curve sequentially), the future has not yet been reached, suggesting openness and freedom. The lemniscate allows both perspectives to be true simultaneously without contradiction.

**Providence and Contingency**: God's eternal knowledge encompasses all moments at once (the whole curve seen from above), yet creatures experience genuine succession and make real choices (movement along the curve from within). The model suggests how both divine sovereignty and creaturely freedom might cohere: not by God "knowing the future" as we do (by waiting for it), but by God's eternal present encompassing what we experience sequentially.

**The Near Return of Distant Moments**

Perhaps the most striking feature for our purposes is this: as one moves along the lemniscate, what lies far ahead in one direction curves back to approach what lies far behind in the other direction. The future is near the past.

This property may illuminate the recurring patterns we observe in history and personal experience. Why do similar problems resurface generation after generation? Why do individuals encounter the same spiritual challenges repeatedly despite growth and effort? Not because we are literally cycling (experiencing identical moments again) but because temporal structure itself may involve return.

The lemniscate suggests that recurrence is not accidental but geometric. Ecclesiastes 1:9 declares: "What has been will be again, what has been done will be done again; there is nothing new under the sun." Linear time struggles with this claim—if we move forward irreversibly, how can what was "be again"? The lemniscate offers a heuristic response: the curve brings us back to similar positions not as identical repetition but as structural return.

Yet Revelation 21:5 promises: "Behold, I make all things new." How can both be true? The lemniscate model may suggest an answer: within temporal succession (moving along the curve), we experience recurrence. But transformation occurs through passage *through* the crossing point, not by traveling further along the same path, but by dimensional transition from temporal loop to eternal present.

**Past and Future Along the Curve**

If we imagine temporal succession as movement along the lemniscate, several possibilities emerge regarding the relationship between past and future.

**Positions on the Loop**

At any given moment, we may be understood as occupying a position on the curve. What we call "past" consists of the arc we have already traversed. What we call "future" consists of the arc ahead. The "present" is our current location, the infinitesimal point where we are now.

But here the lemniscate reveals something striking: the past we have left behind lies on the same continuous curve as the future we approach. There is no ontological gap between them, only temporal distance measured along the curve.

This may illuminate why prophecy is possible. If the entire curve exists as a complete structure (from God's eternal perspective), what we call "future" is not ontologically non-existent but simply untraversed by us. God, seeing the whole simultaneously, knows what lies ahead not by prediction but by direct eternal vision.

**Memory and Anticipation**

Augustine famously argued that time exists in the soul: the past exists as memory, the future as expectation, the present as attention (Confessions XI). The lemniscate model may complement this insight.

As we traverse the curve, we carry with us memory of positions already passed. This accumulated history shapes our current state—not as external record but as sedimented structure. What appears "memoryless" (as in Markovian models) is actually history compressed into present configuration. The past persists not behind us but *within* us, as the path traversed shapes the traveler.

Similarly, expectation is not mere projection, but anticipation informed by the curve's geometry. If temporal structure is lemniscate-shaped rather than linear, our expectations should reflect this, which perhaps explains why we intuit recurrence even when consciously committed to

linear progress. We expect the future to rhyme with the past because the curve brings them into proximity.

**The Question of Direction**

Does temporal succession have a privileged direction along the lemniscate? Physics suggests yes—entropy increases, causality flows from earlier to later. Yet the curve itself is symmetric; there is no geometric necessity for traversing it in one direction rather than the other.

This tension may reflect something true about created temporality: we experience time as directional (the arrow of time established by thermodynamics) yet contemplate from a perspective that recognizes the structure as more fundamental than the direction. The Second Law of Thermodynamics governs processes *within* temporal succession, but it may not exhaust what time is.

Resurrection, from this perspective, is not entropy reversal *within* the system but dimensional transition beyond thermodynamic description. Christ's resurrection body is not matter miraculously reordered despite entropy but matter participating in a mode of existence where entropic description no longer applies.

## The Crossing Point: Threshold Between Loops

The crossing point deserves particular attention, for it represents the most theologically suggestive feature of the lemniscate model.

### Geometric Uniqueness

Mathematically, the crossing point is singular—the one location where the curve intersects itself. Every other point on the lemniscate lies on one loop or the other, but the crossing point belongs to both simultaneously. It is the hinge, the threshold, the point of transition where one loop gives way to the other.

If we imagine temporal succession as movement along one loop, the crossing point represents the boundary—the moment of transition from one phase to another. But it is not merely a boundary; it is a point of intersection, where movement in one direction crosses movement in the other.

### Theological Resonance

Christian theology confesses that in Jesus Christ, eternity and time meet decisively. The Incarnation is not simply God acting in history (as God acts in all events through providence) but God *entering* history as a historical particular without ceasing to be eternal.

The crossing point may serve as a heuristic image for this mystery. Just as the lemniscate's two loops meet at the origin, eternity may be contemplated as intersecting

temporal succession at a unique point—not traveling along the curve but piercing it orthogonally, crossing from a dimension beyond temporal extension.

At the crossing point, what was separated (past and future) meets. What seemed irreconcilable (time and eternity) intersects. What appeared closed (the loop) reveals an opening—passage through to what lies beyond.

The model invites us to picture Christ's death and resurrection not simply as occurring at a moment within temporal succession but as constituting the threshold itself—the crossing point where fallen temporality is opened to eternal presence, where the structure of time is decisively transformed by intersection with eternity.

**Access and Participation**

If the crossing point represents the unique intersection of time and eternity, then sacramental theology makes sense in new ways. The Church's teaching that sacraments make present Christ's saving work across temporal distances may be understood as participation in the crossing point from various positions along the temporal curve.

When we celebrate the Eucharist, we do not "go back" to Calvary in the past, nor does Calvary "come forward" to us in the present. Rather, from our position on the temporal curve, we access the crossing point—the eternal intersection that stands outside succession while remaining accessible from within it.

Baptism marks entry into this access. Reconciliation restores it when forfeited by sin. Confirmation strengthens capacity to dwell at the threshold. The Christian life may be understood as learning to inhabit the crossing point while still traversing the temporal loop—participating in eternity from within time.

## What the Model Illuminates (and What It Does Not Claim)

Having described the lemniscate's geometric properties and suggested theological resonances, it is crucial to clarify the model's scope and limitations.

### What the Model May Illuminate

The lemniscate serves as a heuristic tool that may help us think more clearly about several perennial questions:

- **Recurrence and novelty**: How can history repeat while genuine transformation occurs?
- **Providence and freedom**: How can God's eternal knowledge encompass all while creatures make real choices?
- **Time and eternity**: How can God be eternal while creation is temporal, yet God relate to creation immediately?
- **Prophecy and foreknowledge**: How can the future be known if it does not yet exist?
- **Sacramental presence**: How can the same sacrifice be present at multiple temporal moments?

- **Eschatological hope**: What does it mean for creation to be renewed rather than replaced?

The model does not *prove* answers to these questions but provides a conceptual framework within which traditional Christian answers may appear more coherent and less paradoxical.

**What the Model Does Not Claim**

It is equally important to state clearly what the lemniscate theory does not assert:

**Not a physical cosmology**: The model does not claim that the universe is literally shaped like a lemniscate in physical space. It is a heuristic for reflecting on temporal structure, not a rival to scientific cosmology.

**Not a replacement for established theology**: The framework does not overturn or contradict Catholic teaching on creation, providence, Incarnation, or eschatology. It offers a way of visualizing relationships already affirmed by doctrine.

**Not a metaphysical proof**: The model does not demonstrate that time *must* be lemniscate-shaped by logical necessity. It proposes that imagining time this way may deepen understanding of truths already known through revelation and experience.

**Not univocal description**: Following Aquinas's account of analogical language, the model employs analogy—similarity across difference—not identity. Time is *like* a lemniscate in certain respects useful for contemplation; this does not mean time is literally a geometric curve.

**Not a closed system**: The model invites critique, refinement, and potentially supersession by better frameworks. Its value lies in stimulating thought, not foreclosing inquiry. The model stands or falls by its fruitfulness for contemplation rather than empirical verification— as all theological heuristics ultimately must.

**Transition: From Structure to Event**

We have now established the lemniscate as a heuristic structure for contemplating temporal existence. The curve's properties—closure without termination, unique self-intersection, symmetric loops, the near return of distant moment—provide conceptual resources for reflecting on time, eternity, and their relationship.

But geometry alone cannot account for the Christian narrative of the Fall and redemption. If the lemniscate represents temporal structure, we must ask: has that structure always been experienced in the same way? Or might humanity's relationship to time have changed through historical events that Scripture describes as decisive?

The next chapter turns to precisely this question: how the Fall may be understood not as changing time itself (God's creation remains good) but as fracturing humanity's

participation in the eternal present that grounds temporal succession. If the lemniscate is the enduring structure, what changed in Eden was our mode of traversing it, and what changes through Christ is the opening of passage through the crossing point.

The model is established. Now we explore the event that bent our experience of it and the Event that opens the way through.

## CHAPTER 3

### Before the Fall: Dwelling in Eternal Present

To speak of "before the Fall" requires careful qualification. We are not claiming access to historical details unavailable in Scripture, nor proposing that unfallen existence can be reconstructed through speculative imagination. Rather, we are asking what Christian theology has consistently taught about humanity's original relationship to God and exploring what that teaching might imply for temporal experience.

Genesis describes creation as "very good" (1:31) yet also portrays it as incomplete, ordered toward a consummation symbolized by the tree of life. The Catechism affirms that "God created the world not as something finished, but as something journeying (*in statu viae*) toward an ultimate perfection yet to be attained" (CCC 302). This suggests that even before the Fall, creation involved temporal succession—change, growth, development. Time itself is not the result of sin.

Yet Christian tradition has consistently maintained that something decisive changed when Adam and Eve disobeyed. Not merely moral status (guilt replacing innocence) but the very structure of human existence. We lost something—not just a location (Eden) but a *mode of participation* in divine life. The question this chapter explores is: what might that lost mode have been, particularly as it relates to temporal experience?

**Augustine on Eternity and Time**

No Christian thinker has penetrated more deeply into the mystery of time than Augustine of Hippo. In Book XI of his *Confessions*, he wrestles with a question that still perplexes: What is time? "If no one asks me, I know; if I want to explain it to someone who asks me, I do not know" (*Confessions* XI.14).

Augustine's exploration leads him to a striking conclusion: time exists not "out there" in external objects but *in the soul*. More precisely:

- **The past** exists as memory (retention of what was)
- **The future** exists as expectation (anticipation of what will be)
- **The present** exists as attention (perception of what is now)

Time, for Augustine, is a "distention" (*distentio*) of the soul—a stretching between what is no longer (past) and what is not yet (future), with the present reduced to a knife-edge between them. This distention creates anxiety, for we are pulled between memory's loss and expectation's uncertainty.

But Augustine contrasts this temporal distention with God's eternity. God does not experience succession. God's knowledge is not memory (recovering what was forgotten) nor expectation (awaiting what is unknown). God's entire existence is eternal present—"complete possession of unlimited life all at once" (*Confessions* XI.11, echoing

Boethius). In God, nothing passes away and nothing arrives. All is simultaneously present.

This distinction—temporal succession for creatures, eternal simultaneity for God- has become classical in Christian theology. But Augustine goes further. He suggests that creation itself was made "with time" (*cum tempore*), not "in time" (*in tempore*). Time is not a container God created first and then filled with creatures. Time is the mode of creaturely existence, the structure of our becoming.

Yet here a question emerges: if time is intrinsic to creation, and creation was "very good" before the Fall, what changed when humanity sinned? Augustine does not address this directly, but the lemniscate framework may offer a contemplative response.

**Participation in Eternal Present**

Christian theology speaks of humanity as created in God's image (Genesis 1:27), destined for communion with God, ordered toward beatific vision. Before the Fall, this communion was unimpeded. Humanity participated in divine life without the fracture introduced by sin.

If we employ the lemniscate model contemplatively, we might envision unfallen existence not as absence of time but as a different *relationship* to time. Temporal succession continued—growth, change, development toward perfection. But humanity's participation in God's eternal present meant that succession was experienced from within the grounding stability of eternity.

Frithjof Schuon, in "The Play of Masks" (from *Spiritual Perspectives and Human Facts*), articulated a suggestive image for this distinction: imagine someone standing on solid ground watching a river flow. The river moves (temporal succession), but the observer stands on something that does not move (participation in eternal stability). The observer experiences the flow without being swept away by it. Now imagine that same person falling into the river. The water still flows at the same rate, but now the person is in the flow, carried along, unable to step outside it, rushing between what was upstream and what lies downstream with no stable ground beneath.

The Fall, contemplated through this image, did not change the river (temporal succession) but may be understood as changing humanity's relationship to it. We might imagine humanity as losing the ground—participation in eternal present—and finding ourselves swept along by succession, trapped between past and future, unable to dwell in the present because we have no stable foundation.

This is speculative, to be sure. But it may illuminate why Scripture describes the Fall not merely as moral transgression but as *exile*—expulsion from a place (Eden) that represents a mode of existence. We did not lose time; we lost the capacity to experience time from within the eternal present that grounds it.

**Creation Journeying Toward Perfection**

The Catechism's teaching that creation was made "in statu viae"—in a state of journeying—is crucial here. Even before the Fall, creation was not static perfection but dynamic movement toward consummation:

"With infinite wisdom and goodness God freely willed to create a world 'in a state of journeying' toward its ultimate perfection. In God's plan this process of becoming involves the appearance of certain beings and the disappearance of others, the existence of the more perfect alongside the less perfect, both constructive and destructive forces of nature" (CCC 310).

This passage explicitly affirms that change, succession, emergence, and passing away belong to God's original creative intention. The evolutionary development of life, the cycles of nature, the succession of generations, these are not consequences of sin but features of creation's journey toward perfection.

Yet the same passage notes that this journey involves both "constructive and destructive forces." Death existed before human sin, at least for non-rational creatures. Predation, competition, natural selection—the mechanisms Darwin observed—operated before the Fall. This is not disorder but the means by which creation moves toward its appointed end.

How, then, does the Fall introduce something genuinely new? Not time itself, not change, not even biological death. What changes is *humanity's relationship to these realities*. The journey continues, but we now experience it as anxious striving rather than peaceful participation. We fear death because we have lost access to the eternal life that

grounds temporal existence. We experience time as threatening because we no longer rest in the eternal present.

The lemniscate model may offer an image for this. The structure itself (the curve) remains constant. What changed is our mode of traversing it —from participation grounded in eternity to exile trapped in succession.

**Simultaneous Creation: The Chicken and the Egg**

If unfallen humanity participated in God's eternal present while experiencing temporal succession, ancient paradoxes like the chicken-egg problem may appear differently.

Recall the paradox: Which came first, the chicken or the egg? In linear temporal thinking, one must precede the other. But if each requires the other for existence, infinite regress results with no satisfactory first cause.

The lemniscate framework, combined with the theology of creation "in statu viae," may suggest a contemplative resolution. From God's eternal perspective, the entire evolutionary journey -from simplest organisms through countless generations to complex life forms- exists as one simultaneous creative act. God does not create the chicken *then* the egg, nor the egg *then* the chicken. God creates the whole pattern at once: the complete structure of life's development over billions of years, held simultaneously in divine creative will.

Yet from within that structure, creatures experience succession. We observe eggs hatching into chickens and chickens laying eggs. The causal chain unfolds temporally because we traverse it sequentially. But the chain itself—the entire lemniscate of biological development—may be contemplated as existing all at once in God's eternal creative knowledge.

We might speculate whether participation in God's eternal present would have altered how such questions appeared to unfallen humanity. Not that Adam and Eve could see all of evolutionary history (they were finite creatures with limited knowledge).

But the question "which came first?" presupposes that temporal priority is ultimate. If the entire temporal pattern exists simultaneously in God's creative will, the question may reveal our limitation rather than reality's structure. Neither came first in God's creative act. Both emerge sequentially *in our temporal experience of that act.*

This is not to deny real causation within temporal succession. Eggs really do come from chickens; chickens really do come from eggs. The causal chain is genuine. But the chain itself may be contemplated as existing within a larger simultaneity—the eternal creative act that grounds all temporal becoming.

**What Remained Good: The Enduring Structure**

An important clarification: if the lemniscate represents temporal structure, and if that structure is God's creation, then it remains good even after the Fall. Sin does not corrupt the fundamental nature of time. The curve itself persists.

What changed is humanity's relationship to that structure. We lost participation in the eternal present that allowed us to experience succession without anxiety. We became trapped *in* the flow rather than grounded *beyond* it while experiencing it.

This preserves the crucial theological principle: creation is good; sin introduces disorder not by corrupting created nature but by fracturing right relationship. Time remains God's good gift. The lemniscate continues as the structure of creaturely existence. What we lost is the capacity to dwell within it properly—to move through succession while resting in eternity.

Genesis 3:19 declares the consequence of sin: "By the sweat of your brow you will eat your food until you return to the ground, since from it you were taken; for dust you are and to dust you will return." This is often read as introducing mortality. But perhaps more fundamentally, it describes the loss of stable ground. We return to dust because we have lost our grounding in the eternal. We toil anxiously because we experience succession as threat rather than gift. We fear death because we no longer participate in the life that transcends temporal limitation.

The structure endures. What we lost is our mode of inhabiting it.

**The Present We Cannot Grasp**

Augustine describes fallen temporal experience with painful accuracy: "My life is a distraction. I am pulled this way and that by things I do not control" (*Confessions* XI). The past pulls us back through memory—often as regret, shame, or nostalgia. The future pulls us forward through expectation—often as anxiety, ambition, or dread. The present becomes impossibly thin; a vanishing point we rush through without dwelling in.

This could be read as phenomenological resonance with the idea of exile from eternal present. We experience succession not as peaceful participation but as relentless rushing—carried along by a current we cannot escape, unable to stand still, perpetually between what is no longer and what is not yet.

Contemplative practice, particularly within Catholic tradition, often aims precisely at recovering capacity to dwell in the present moment. Prayer seeks to quiet the distraction Augustine describes, to rest attention on what is now rather than being pulled toward past or future. The liturgy's rhythms—daily office, weekly Mass, yearly cycle—train us in return, in coming back again and again to the same present encounter with God.

This is not escape from time but healing of our relationship to it. We do not leave the lemniscate; we learn to traverse it differently, recovering something of

the participation in eternal present that grounds temporal succession properly.

The Fall did not destroy this possibility entirely—we are not utterly cut off from God—but it made participation difficult, requiring conscious effort, spiritual discipline, and above all, grace. What may once have been immediate now appears mediated. What was once gift became task.

**Transition: From Loss to Restoration**

We have contemplated what may have been lost: participation in God's eternal present that allowed peaceful traversal of temporal succession. The lemniscate structure remained, but our mode of inhabiting it changed from grounded stability to anxious exile.

If this contemplative framework has merit, it raises the central question of Christian theology: Can what was lost be restored? And if so, how?

The next chapter turns to precisely this question. If the Fall may be understood as fracturing humanity's relationship to temporal existence, what does it mean to speak of Christ as redeemer of that relationship? How can eternity re-enter time in a way that opens passage back to participation in eternal present?

The structure endures. The metaphor invites us to wonder whether such a passage might be conceivable—whether a way can be opened through the threshold from exile back to

dwelling, from anxious succession back to grounded participation.

Christian faith confesses that such a way has been opened. The next chapter explores how.

## CHAPTER 4

### The Fall as Geometric Transformation

The account of humanity's Fall in Genesis 3 has been contemplated by theologians for millennia. What precisely occurred when Adam and Eve disobeyed? What changed in that decisive moment? Christian tradition offers multiple layers of interpretation: the loss of original justice, the introduction of concupiscence, the fracturing of right relationship with God, the entrance of death into human experience.

The lemniscate framework does not replace these established readings but may offer a complementary perspective. If we contemplate the Fall through the lens of temporal structure, we might ask: Did time itself change, or did humanity's relationship to time change? The framework proposed here suggests the latter.

### What the Fall Changed (and What It Didn't)

An essential theological principle: creation remains good even after the Fall. Sin introduces disorder, fractures right relationship, distorts human nature—but it does not corrupt the fundamental structure of created reality. Matter remains good (contrary to Gnostic heresies). Time remains good (contrary to certain Eastern philosophies that view temporal existence as illusory or purely negative). The physical cosmos continues to operate according to the laws God established in creation.

If the lemniscate represents the structure of temporal existence, and if that structure is God's creation, then it endures unchanged through the Fall. The curve itself persists. What changed is not the structure but humanity's mode of inhabiting it.

The Fall did not rewrite the architecture of creation. It altered the creature's communion with it.

To return to Schuon's image: the river's flow did not alter. The same current moves at the same rate. What changed is that humanity fell from the bank into the water—from participation grounded in eternal stability to immersion in pure succession without ground.

This interpretation preserves several crucial theological points:

**Creation's goodness is maintained.** The lemniscate structure, being God's creative work, remains "very good" (Genesis 1:31) even after human rebellion. Time is not inherently fallen; our experience of time is.

**Human responsibility is affirmed.** The Fall is genuine human choice with real consequences, not cosmic necessity or divine orchestration. Christian theology describes humanity as having forfeited participation in eternal present; God did not revoke it arbitrarily.

**Redemption becomes coherent.** If the structure remained intact, restoration is possible. Christ does not need to create a new temporal order but can reopen access to right participation in the existing order.

**Genesis 3:19 and the Loss of Ground**

The consequences of sin are enumerated in Genesis 3. Verses 16-19 detail specific curses: pain in childbirth, toil in labor, thorns and thistles from the ground, and finally: "By the sweat of your brow you will eat your food until you return to the ground, since from it you were taken; for dust you are and to dust you will return."

This is typically read as introducing mortality—the physical death that now marks the end of human life. And indeed, that reading is valid. But we might also contemplate a deeper loss implicit in the language: what may be understood symbolically as the loss of ground itself.

"You return to the ground" (*adamah* in Hebrew, related to *adam*, humanity) might suggest not merely future death but present exile from stable foundation. In Schuon's imagery, we have left the solid bank and now tumble in the current. We have no ground beneath us. The very earth —adamah— which should provide stability becomes the symbol of our dissolution: dust to dust, ground to ground, without permanent foundation.

Before the Fall, participation in God's eternal present may be contemplated as providing that ground—a stability that allowed peaceful experience of temporal succession. After the Fall, Christian tradition describes humanity as having lost that ground. Now we experience succession not from a position of rest but from within the flow itself, carried along, unable to step outside, anxiously moving between past and future with no abiding present to anchor us.

This loss of ground manifests in multiple ways:

**Existentially**: We feel unmoored, anxious, pulled between competing demands of memory and anticipation.

**Epistemologically**: We struggle to know truth with certainty, pulled between skepticism about the past and uncertainty about the future.

**Morally**: We experience moral struggle as being swept along by passions and circumstances rather than choosing from stable principle.

**Spiritually**: Prayer becomes difficult because dwelling in present attention to God requires precisely the grounding we have lost.

The Fall did not bend the lemniscate. It removed our capacity to stand on the bank. We now traverse the curve from within.

**Sequential Causality as Artifact of Exile**

In the previous chapter, we contemplated the chicken-egg paradox and suggested that before the Fall, such questions might have appeared differently to humanity participating in God's eternal present. Now we can explore the inverse: after the Fall, sequential causality becomes the dominant framework through which we experience reality.

We become situated within "before and after" thinking. We demand temporal priority: which came first? We construct chains of causation extending infinitely backward, each link requiring a prior link. Our experience within succession naturally generates these problems, the paradoxes that have engaged philosophers across traditions.

This is not to deny that causation is real or that temporal sequence genuinely governs physical processes. Within the temporal order, causes do precede effects. But we might contemplate whether our insistence that temporal priority is *ultimate*—that the question "which came first?" must have an answer within sequential terms—reflects the limitations of our perspective from within the flow.

God, seeing the whole lemniscate simultaneously from eternal vantage, does not ask "which came first?" because the entire structure exists at once in divine creative knowledge. We ask the question because we traverse the curve sequentially and have lost participation in the eternal view that would dissolve the paradox.

Sequential causality, then, may be understood not as illusion but as *limited perspective*. It is genuinely how we experience temporal succession from within the flow. But it is not the whole truth. The whole truth would require seeing from eternity—the vantage we forfeited in Eden.

This has profound implications for how we understand:

**Historical interpretation**: We seek linear cause-and-effect chains (Event A caused Event B caused Event C). But history also exhibits recurring patterns that linear causality struggles to explain. The lemniscate suggests both are

true: linear causality within temporal experience, recurring patterns reflecting the curve's structure.

**Personal development**: We experience our lives as sequential autobiography, childhood, then adolescence, then adulthood. Yet we also notice recurring themes, patterns that return, lessons we must relearn. We are traversing a curve, not a line.

**Moral responsibility**: We are genuinely free agents making real choices in sequential moments. Yet we also recognize that our choices occur within patterns, contexts, structures that shape (without determining) what we choose. Freedom operates within the lemniscate, not outside it.

**The Anxiety of Fallen Temporality**

Augustine's description of temporal distention (*distentio animi*) captures the phenomenology of fallen existence with painful precision. We are stretched between memory's no-longer and expectation's not-yet, with the present collapsing into an infinitesimal instant we can barely grasp.

This anxiety is not accidental but structural to existence cut off from eternal grounding. Consider what we have lost:

**Loss of present dwelling**: Without participation in eternal present, we cannot rest in the now. We rush through it, pulled between past and future.

**Loss of stable knowledge**: Memory becomes uncertain (did it really happen that way?). Expectation becomes anxious (what if things go wrong?). Present perception becomes doubtful (am I seeing clearly?).

**Loss of peaceful succession**: Temporal change becomes threatening rather than natural. We fear the future because we have no eternal ground assuring us that what changes temporally remains stable eternally.

**Loss of confident purpose**: Without grounding in God's eternal purpose, we question whether our temporal striving has meaning. Does history go anywhere, or do we simply cycle endlessly?

The lemniscate structure itself provides no answer to these anxieties. It simply *is*—the curve along which we move. What we lost is the participation in eternity that would allow us to traverse the curve with peace rather than anxiety, trusting that temporal succession unfolds within eternal stability.

This suggests why contemplative practices across traditions aim at recovering present-moment awareness. Prayer, meditation, mindfulness —these are not escapes from time but attempts to heal our relationship to it. We cannot leave the lemniscate (we remain temporal creatures), but we can learn to traverse it with greater peace, recovering something of the participation we lost.

Yet contemplative practice alone cannot fully restore what was lost. We can discipline ourselves toward greater presence, but the structural loss—exile from participation in God's eternal life—requires more than human effort. It requires grace. It requires redemption.

**Why the Structure Remained Good**

An objection might arise: If the Fall introduced such catastrophic loss, why doesn't Scripture describe it as changing the structure of reality itself?

The answer may lie precisely in what we have been contemplating: the structure “didn't” change because the structure is God's good creation. What changed is humanity's relationship to that structure.

A piano remains a piano whether played by a master or a beginner. The structure endures. The performance changes.

This preserves the crucial doctrine that creation remains good. When Scripture speaks of "groaning in labor pains" (Romans 8:22), it does not mean creation became evil, but that creation shares in the disordering consequences of human sin while awaiting restoration.

The lemniscate endures. The crossing point remains. What was lost is the way through.

This sets up the central question: Can the way be reopened? Can passage through the crossing point be restored?

**Transition: The Structure Endures, the Way Is Closed**

We have contemplated the Fall as a change in relationship rather than change in structure. The lemniscate remains; our mode of traversing it has been fractured. Participation in eternal present was forfeited; we now experience succession as anxiety rather than gift.

The structure endured. Communion did not.

If this framework has any merit, it helps us understand both the depth of our loss and the shape of our hope. We did not lose time itself—time remains God's good gift. We lost right relationship to time. We cannot undo this loss through our own effort; we are trapped within the very exile we seek to escape.

The next chapter explores how Christian faith contemplates that intervention. If the lemniscate framework illuminates the structure of our exile, how might it illuminate the structure of our redemption? How can eternity re-enter time in a way that opens passage through the crossing point? How can the way be restored?

The crossing point stands. The question is whether anyone can open the way through.

Christian faith confesses not merely that the way *can* be opened but that it *has been* opened. The next chapter explores how.

# PART II REDEMPTION

## CHAPTER 5

### The Crossing Point Opened

Humanity lost participation in eternal present and found itself exiled within temporal succession, anxiously rushing between memory and anticipation with no ground beneath. The lemniscate remained God's good creation, but the way through the crossing point was closed.

Christian faith makes a singular claim: the way has been reopened. Not through human striving, not through philosophical insight, not through religious discipline—but through divine intervention. God entered the exile to open the way from within.

This chapter contemplates how the Incarnation, death, and resurrection of Jesus Christ may be understood through the lemniscate framework as the decisive opening of passage through the crossing point, the restoration of access to eternal present while remaining within temporal existence.

### The Threshold Was Closed

Before exploring what it means for the crossing point to be opened, we must understand more precisely what it means for it to have been closed.

The closure was not mechanical, as if a physical door had been locked. The lemniscate structure itself remained

intact. The crossing point persisted as the unique location where the two loops meet. Geometrically, nothing changed.

What changed was humanity's capacity to traverse through. We lost participation in God's eternal present, the grounding that would allow passage from temporal succession to eternal simultaneity. We became trapped within the flow, experiencing time as relentless forward motion with no stable vantage beyond it.

In Dante's *Inferno*, the gate of hell bears the inscription: "Abandon all hope, you who enter here." The exile from Eden might bear a different inscription: "Abandon all ground, you who leave here." We did not enter a place of punishment but lost the ground of participation. We remained in the structure God created—the lemniscate of temporal existence—but could no longer traverse it properly.

The crossing point stood as threshold we could not cross. It remained the unique location where past and future meet, where temporal succession touches eternal presence. But we had no access. We could only rush past it, swept along by the current, unable to stop, unable to step through.

**Death and Resurrection: Passage Through the Threshold**

Christian theology confesses that Jesus Christ is fully God and fully human—the hypostatic union of divine and human natures in one person. This union might be envisioned as eternity intersecting time without being contained by temporal succession.

If we extend that contemplation, we might picture Christ's death and resurrection as the decisive passage through the crossing point that reopens the way for humanity.

Consider the structure of the paschal mystery:

**Good Friday**: Christ experiences the fullness of fallen temporality—suffering, abandonment, the rush toward death that marks creaturely existence cut off from eternal life. "My God, my God, why have you forsaken me?" (Matthew 27:46). He enters completely into the exile, descending to the depths of temporal succession without forfeiting his divine nature.

**Holy Saturday**: Christ descends to the dead—the tradition speaks of *descensus ad inferos*, descent to the realm of those who have died. He stands at the threshold between temporal existence and what lies beyond. The crossing point.

**Easter Sunday**: Christ passes through. Not backward into temporal life as Lazarus did (who would die again), but forward—or rather, through—into resurrection life that transcends temporal limitation while remaining embodied and particular.

The lemniscate framework may offer a contemplative image for this mystery. Christ does not escape the temporal loop. He passes through the crossing point, opening the threshold that had been closed, establishing a way from temporal succession to participation in eternal present.

The resurrection body is not a return to pre-Fall temporality (Jesus before crucifixion) but entrance into redeemed temporality—existence within time that is grounded in eternity. He eats fish (Luke 24:42-43), walks with disciples (Luke 24:15), bears the wounds of crucifixion

(John 20:27). He is not timeless spirit but embodied person who has traversed the crossing point and emerged with temporal existence transformed.

**What "Opening" Means: Access, Not Escape**

A crucial clarification: the opening of the crossing point does not mean escape from temporal existence. We do not leave the lemniscate. We do not become timeless. The structure remains, and we remain within it.

What changes is that the threshold becomes permeable. The crossing point, which stood closed to fallen humanity, is now accessible. Passage through becomes possible—not as exit from time but as restoration of participation in eternal present *while remaining temporal creatures*.

This may illuminate several aspects of Christian hope:

**Resurrection of the body**: We do not hope for disembodied eternal existence. We hope for transformed bodily existence—temporal life grounded in eternal participation. The crossing point opened by Christ allows this. We will not escape time; we will traverse time properly.

**New heavens and new earth**: The eschaton is not replacement of creation but its renewal (Revelation 21:5: "I make all things new," not "I make new things"). The lemniscate endures. What changes is that all creation will traverse it with the participation Adam lost—grounded in eternal present, experiencing succession without anxiety.

**Beatific vision:** To see God "face to face" (1 Corinthians 13:12) is not to leave temporal existence but to experience it from within the grounding of eternal communion. The threshold opened. The way through accessible.

**Present Christian life:** Already, through faith and sacrament (which the next chapter explores), Christians participate partially in what will be fully realized in resurrection. We taste the eternal present while still rushing through temporal succession. The crossing point is accessible now, though we do not dwell there permanently.

**Dimensional Transition, Not Temporal Travel**

A common misunderstanding must be addressed: the opening of the crossing point is not time travel. Christ does not "go back" to fix what was broken in Eden, nor do we "go forward" to escape present difficulties.

The crossing point represents intersection of dimensions—temporal succession meeting eternal simultaneity. To pass through is not to move to a different moment within time but to transition from one mode of existence to another.

Consider how Scripture describes the resurrection encounters. The disciples do not recognize Jesus immediately (Luke 24:16, John 20:14, John 21:4). He appears suddenly in locked rooms (John 20:19). He is present yet somehow beyond normal temporal constraints. This is not magic or violation of physical law but participation in a

dimension where temporal succession no longer determines the boundaries of presence.

The lemniscate framework might picture this as follows: We traverse the curve sequentially, experiencing one moment after another. Christ, having passed through the crossing point, relates to the entire curve from the eternal dimension that intersects it. He is not "before" or "after" in temporal sequence but *through*—present to all moments from the crossing point that opens to eternity.

This helps us understand the Eucharist (explored fully in the next chapter). When we celebrate Mass, we do not go back to Calvary temporally. Christ's sacrifice does not recur. Rather, the one sacrifice that occurred at a specific historical moment (AD 33, give or take) is present to us across temporal distance because Christ, passing through the crossing point, makes himself accessible from the eternal dimension to all points along the temporal curve.

The threshold is dimensional, not temporal. The opening grants access, not time travel.

**The Permeable Threshold**

If we picture the crossing point before Christ as a closed door—structurally present but impassable—we might now picture it as an open threshold. Not that the door has been removed (the distinction between time and eternity remains),but that passage through has become possible.

This permeability is one-directional in a specific sense. We cannot pass through at will, as if we controlled access to eternity. But Christ, having passed through from the eternal side, can make himself present to us within temporal succession. The threshold is open from eternity toward time—God's gift of access, not our achievement of ascent.

This may illuminate why Christian spiritual life emphasizes receptivity, grace, and gift rather than technique, effort, and achievement. Contemplatives across traditions have discovered that progress in prayer comes not through striving but through surrender—learning to receive what is offered rather than grasping after what seems distant.

The crossing point is open. But we do not force our way through. We are invited through. We learn to recognize when the threshold is accessible and step toward it in faith rather than rushing past it in anxiety.

This is the pattern of Christian conversion and ongoing transformation: moment by moment, learning to dwell at the threshold rather than being swept past it. Not escape from time but healing of our relationship to time. Not exit from the lemniscate but learning to traverse it with the participation Adam lost and Christ restored.

**Access Granted, Not Earned**

Classical Christianity insists that redemption is gift, not achievement. We cannot save ourselves. We cannot earn access to God. We cannot force passage through the crossing point by technique or merit.

The lemniscate framework may help us understand why this must be so. We are trapped within the very exile we seek to escape. A prisoner cannot unlock the cell from within. A drowning person cannot pull themselves out of the water by their own hair. We rush through temporal succession without ground; we cannot ground ourselves by rushing faster or more deliberately.

The opening must come from beyond the exile—from the eternal dimension that intersects the temporal curve. It must be gift. It must be grace.

Christ, being fully divine, participates in eternal simultaneity. He is not trapped within succession. Yet being fully human, he genuinely enters temporal existence, experiences the exile, traverses the curve from within. The hypostatic union allows him to open the threshold from both sides simultaneously—divine from eternity, human from time.

We receive what he opens. We do not create access; we accept the access he grants. The crossing point is permeable because of his passage, not our progress.

This has profound implications for Christian life. We do not meditate to earn enlightenment. We do not practice virtue to deserve salvation. We do not discipline ourselves to force divine encounter. Rather, we learn to recognize the opened threshold and receive the invitation to pass through.

Grace precedes. Gift comes first. Access is granted.

**The Structure Transformed by Participation**

A paradox emerges: the structure endures unchanged (the lemniscate remains God's good creation), yet everything changes through restored participation.

Think of a musical score. The notes, rhythms, and harmonies remain constant on the page. What transforms the experience is the performer's relationship to the score—a skilled musician brings out beauty that a beginner cannot access even though both read the same notes.

The temporal structure remains. What Christ restores is the capacity to participate in it properly—grounded in eternal present rather than exiled in pure succession. The lemniscate is the same curve. The traversal is radically different.

This means redemption does not escape created reality but heals our relationship to it. We do not hope to leave time behind but to inhabit time rightly. The crossing point opens not as exit but as threshold between two modes of existing within the same created order: exiled succession and grounded participation.

Christ has passed through. The way is open. The invitation extended.

**Transition: From Opening to Participation**

We have contemplated Christ's death and resurrection as the opening of the crossing point—the restoration of access to eternal present while remaining within temporal succession. The threshold that stood closed is now permeable. Passage through is possible.

But how do individual Christians, living centuries after the historical events of Good Friday and Easter Sunday, access this opened threshold? How does Christ's once-for-all passage become repeatedly accessible to us who still traverse the temporal curve in exile?

The next chapter turns to the Church's answer: the sacraments. These are not mere symbols or memory aids but genuine intersections with the eternal dimension Christ opened. Through baptism, Eucharist, and the other sacraments, we participate in the crossing point from our various locations along the temporal curve.

The way is open. Now we explore how we access it.

## CHAPTER 6

### Christ as Orthogonal Intersection

The previous chapter contemplated how Christ's death and resurrection opened the crossing point—restoring access to eternal present while we remain within temporal succession. But to understand how this opening occurs, we must first consider *how* eternity enters time in the Incarnation.

Christian theology has long wrestled with this question. If God is eternal—existing outside temporal succession, unchanging, complete—how can God genuinely enter history as a particular man born in a specific place and time? The doctrine of the Incarnation affirms both divine transcendence and genuine historical particularity, but the *how* remains mysterious.

The lemniscate framework offers a geometric image that may illuminate this mystery. If temporal succession is movement along a curve, the Incarnation can be pictured not as God becoming one more traveler along that curve but as eternity intersecting the curve from beyond—piercing it orthogonally at a unique point.

### Not One More Event in the Sequence

A common misunderstanding treats the Incarnation as simply God acting *within* history—as if the eternal God stepped onto the timeline at point X (Bethlehem, circa 4 BC) and traveled forward along it like any other historical actor.

But this would make Christ subject to the same temporal limitations as every creature. He would experience succession just as we do—past receding, future approaching, present slipping away. He would be swept along by the current, trapped within the flow. His knowledge would be limited to what memory retains and expectation anticipates. He could not "see" the whole of history but only his sequential position within it.

Classical Christology rejects this. Jesus Christ is fully human, genuinely experiencing temporal succession, growth, learning, suffering. But he is also fully divine—participating in God's eternal simultaneity, encompassing all moments at once, not subject to the constraints of creaturely temporality.

The lemniscate framework pictures this distinction through dimensional orientation. Creatures traverse the curve sequentially—experiencing one moment after another, moving through time. Christ, in his divine nature, relates to the entire curve from the eternal dimension that intersects it without being contained by temporal succession.

This is what "orthogonal" means geometrically: perpendicular, at right angles, from a different dimension entirely. Not traveling along the curve but crossing through it.

**Orthogonal Intersection Explained**

Consider a simple geometric image: a circle drawn on a sheet of paper, a closed curve contained within the surface. Now imagine a line passing through the circle from beyond that surface. To an observer confined to the plane, the line would appear only at the single point where it

intersects the circle. Yet the line neither travels along the circle nor belongs to its plane. It relates to the curve while remaining beyond the surface in which the curve exists.

The lemniscate model employs a similar analogy. Temporal succession is the curve we traverse—the ordered unfolding of moments encountered one after another. Eternity is not another point along this curve, nor a distant region within it, but a different mode of existence altogether: not bound to succession, yet present to every moment within it.

From within time, divine action appears as particular intersections—moments where eternity touches history. From the standpoint of eternity, however, these are not movements between moments but expressions of a single, abiding presence to the whole curve at once.

The analogy is illustrative, not literal. It does not spatialize eternity or place God elsewhere within a larger structure. It serves only to gesture toward the mystery that eternity is not extended time, but a mode of being unmeasured by before and after.

Eternity appears as a “perpendicular dimension”—not spatially conceived, nor another location within time, but an analogical expression of a mode of existence wholly unmeasured by before and after.

When eternity intersects time in the Incarnation, it does not travel along the temporal curve. It pierces through from beyond. From our perspective within temporal succession, we observe this intersection at a particular historical moment (the life, death, and resurrection of Jesus of Nazareth). But from the eternal perspective, the

intersection relates to the entire temporal curve simultaneously.

Christ's knowledge in the Gospels at times exceeds what could be obtained through ordinary temporal experience. He knows events unobserved, histories untold, and personal realities hidden from view—not as conclusions reached through inquiry, but as knowledge immediately present.

When Jesus meets Nathanael, he declares, "Before Philip called you, when you were under the fig tree, I saw you" (John 1:48). He refers to a prior moment no one present had witnessed. Likewise, in his encounter with the Samaritan woman, he recounts the concealed details of her life: "You have had five husbands, and the one you now have is not your husband" (John 4:18). The knowledge is precise and unprompted. In both scenes, astonishment arises because Jesus knows without being told.

These moments are not portrayed as prophetic flashes nor as though Christ had traversed time to gather information. Rather, they suggest that his divine knowing relates to temporal reality without being bound by its sequence. What is past to us remains present to the divine intellect.

Within the lemniscate framework, temporal life is the curve we traverse, encountering moments successively. Divine eternity does not move along this curve but relates to it in its wholeness. Knowledge of any moment, therefore, does not require arrival at that moment. It is known in the immediacy of eternal presence.

This does not divide Christ into two persons nor imply two separate consciousnesses. His human awareness unfolds within time as ours does, while his divine nature knows

without succession. The Gospel scenes of hidden knowledge thus disclose not temporal advantage, but eternal relation: the Word made flesh knowing creation from beyond the limits he freely entered.

This helps clarify several Christological claims:

**Christ's pre-existence**: "Before Abraham was, I am" (John 8:58). Not that Jesus traveled backward through time to exist before Abraham, but that the eternal Word who became incarnate in Jesus transcends temporal sequence entirely. The intersection point (Incarnation) relates to all moments along the curve—past, present, and future—from the eternal dimension.

**Christ's omniscience**: Jesus knows things he could not know through ordinary temporal experience (John 1:48, John 4:18). Not because he traveled through time gathering information, but because his divine nature relates to the whole curve from beyond succession.

**Christ's cosmic significance**: "All things were created through him and for him" (Colossians 1:16). Not just events after his birth but the entire temporal structure—the lemniscate itself—exists in relation to this intersection point where eternity meets time.

**Christ's presence across time**: "I am with you always, to the end of the age" (Matthew 28:20). Not that Jesus travels forward through time alongside us, but that the intersection of eternity with time remains accessible from all positions along the temporal curve.

**The Hypostatic Union and the Lemniscate**

The doctrine of the hypostatic union—two natures (divine and human) united in one person (Jesus Christ)—has been contemplated by theologians since the early Church councils. The challenge is holding together genuine divinity and genuine humanity without diminishing either.

The lemniscate framework offers a geometric picture for how this union might be envisioned.

**The human nature participates in temporal succession.** Jesus is born, grows, learns, suffers, dies—all genuine experiences of a created, temporal being. He traverses the lemniscate as we do, experiencing the curve from within. He knows hunger, thirst, fatigue, grief. He does not "pretend" to be human; he genuinely is human, which means genuinely temporal.

**The divine nature relates to the curve from eternity.** The Word who became flesh remains God—unchanging, eternal, encompassing all moments simultaneously. This nature does not traverse the curve but intersects it from the dimension beyond temporal succession. It relates to past, present, and future not sequentially but all at once.

**The one person unites both.** Jesus Christ is neither "God wearing a human costume" nor "a human being adopted by God" but the single person in whom divine and human natures are united without confusion or separation. According to his human nature, he experiences time from within, traversing the curve sequentially. According to his divine nature, he relates to the curve from eternity, intersecting it from

beyond succession. One person, two natures, each operating according to its proper mode.

This is why the Cross works as it does. The human nature suffers and dies, genuinely experiencing the fullness of fallen temporality, the exile from eternal present, the rush toward death that marks creaturely existence. The divine nature intersects this suffering from eternity, transforming it into the means of redemption precisely because the intersection of eternity with this particular moment of temporal suffering opens the crossing point for all moments.

The hypostatic union is not just a theological puzzle but the ground of redemption itself. Only one who genuinely participates in temporal succession (human) can experience the exile from within. Only one who genuinely relates to the entire curve from eternity (divine) can open the way through for all moments along the curve.

**The Cross as Convergence Point**

If the Incarnation is eternity intersecting time orthogonally, the Cross and Resurrection represent the culmination of that intersection—the moment where past and future converge in decisive transformation.

Traditional theology speaks of Christ's work as recapitulation (*anakephalaiōsis* in Greek)—summing up, gathering together, bringing to a head. Christ "recapitulates" all of human history in himself, gathering what was scattered, healing what was broken, restoring what was lost.

The lemniscate framework pictures this geometrically. At the crossing point of the curve, the two loops meet. Past and future approach each other. What was and what will be converge at the threshold where temporal succession meets eternal present.

Christ's death and resurrection occur at this convergence—not merely *at* a moment within succession but as the decisive manifestation of the crossing point within history, the location where:

**- Past sin meets future redemption.** The guilt accumulated through history (past) is forgiven, and the promise of restoration (future) is inaugurated.

**- Death meets life.** The ultimate consequence of the Fall (death, the cessation of temporal existence) is transformed by passage through the crossing point into resurrection (temporal existence grounded in eternal life).

**- Time meets eternity.** The horizontal movement along the temporal curve (succession) encounters the vertical intersection from beyond (eternity), and the threshold between them becomes permeable.

The Cross is where this convergence becomes visible within history. Jesus of Nazareth—the man who is God— suffers the fullness of temporal exile (abandonment, suffering, death) precisely at the point where eternity intersects time. The human nature experiences the depth of the Fall. The divine nature transforms that experience into the means of opening the way through.

On Holy Saturday, tradition speaks of Christ descending to the dead—standing at the threshold, the crossing point between temporal existence and what lies beyond. On Easter Sunday, he passes through—not by escaping temporality but by traversing it rightly, grounded in eternal participation rather than exiled in pure succession.

The resurrection body demonstrates what passage through the crossing point means: Jesus remains embodied, particular, temporal (he eats, walks, speaks, bears wounds). But his mode of existing within time has been transformed. He appears in locked rooms, vanishes from sight, is no longer bound by ordinary spatial-temporal limitation. This is not magic but the redeemed mode of temporal existence—still within the lemniscate but traversing it from the grounding of eternal participation.

**The Cross as Victory, Not Defeat**

A crucial clarification: Some theological language speaks of Christ being "defeated" at the Cross, as if Good Friday were failure requiring Easter's rescue. While such language may serve pastoral purposes, it risks obscuring the Church's consistent teaching that the Cross itself is victory.

The lemniscate framework helps clarify this point. The crossing point is not where Christ fails and then recovers, but where eternity decisively intersects time. The Cross is not prelude to victory but victory itself, the very instrument through which triumph is accomplished.

When Christ declares "It is finished" (John 19:30), he announces completion, not failure. Colossians 2:15 states that he "disarmed the rulers and authorities and made a public example of them, triumphing over them in [the cross]—triumph in the cross, not after it—. Hebrews 2:14 teaches that "through death he might destroy the one who has the power of death", victory accomplished “by means of” dying, not despite it.

The crossing point model illuminates this mystery. What appears as defeat from within temporal succession—a man dying in abandonment— is revealed as triumph when understood from the eternal dimension. The divine nature does not suffer defeat and require rescue. The human nature genuinely experiences death, but that experience is simultaneously the means by which death itself is conquered.

This is why the Church's liturgy consistently presents Good Friday and Easter as a single mystery: "By his cross and resurrection, he has set us free." Not defeat-then-rescue, but passage through the crossing point that opens the way for all. The Cross does not become victorious later; it is victorious in the moment of seeming defeat because eternity intersects time precisely there.

The lemniscate framework pictures this: the crossing point is not a moment of failure followed by divine intervention. It is the intersection where temporal suffering becomes the instrument of eternal triumph, where death entered from within destroys death, where what temporal perspective reads as defeat eternal perspective reveals as decisive victory.

**Why This Matters for Redemption**

The orthogonal intersection model illuminates why Christ's work is both universally effective and historically particular.

**Universally effective:** Because the intersection comes from the eternal dimension, it relates to all points along the temporal curve. Every moment—past, present, and future— is within reach of the crossing point that Christ opened. Abraham in 1800 BC and you reading this in AD 2026 are equally positioned to access the threshold, not because Christ travels through time but because the eternal intersection is present to all temporal moments from beyond succession.

**Historically particular:** Because the intersection occurs at a specific point within temporal succession (Judea, first century AD), it is genuinely historical. Jesus of Nazareth is not a timeless myth or universal principle but a real man who lived, died, and rose at a particular time and place. The orthogonal intersection enters history *as* history—eternity genuinely engaging time, not replacing it.

This also illuminates the scandal of particularity that Christianity has always provoked. Why Jesus? Why that moment? Why not another time, place, or person?

The lemniscate framework suggests an answer: The crossing point is unique. There is one location where the two loops of the curve meet. Multiple intersections would not be multiple crossing points but a different structure entirely. Within the logic of this image, the crossing point appears structurally singular—and if redemption comes through the opening of that point, the Incarnation would

likewise be singular: one intersection of eternity with time that opens the way for all.

This is not to claim mathematical derivation of theological truth but to show how the geometric image coheres with what revelation teaches, one Savior, one mediator, one crossing point opened for all.

**From Geometry to Grace**

A caution is necessary here. The lemniscate model does not "prove" the Incarnation or "explain" it in the sense of reducing mystery to mechanics. The hypostatic union remains ineffable—a truth revealed by God that exceeds our capacity for full comprehension.

What the model offers is a geometric image that may help us think more clearly about truths we already confess. It pictures how eternity and time might relate, how divine and human natures might coexist in one person, how Christ's work might be both historically particular and universally effective.

But the image is not the reality. The map is not the territory. The lemniscate is a heuristic tool for contemplation, not a metaphysical blueprint of how things "actually work." It serves us by organizing thought, suggesting connections, and inviting questions. It does not replace the mystery with a diagram.

We return always to the central confession: Jesus Christ is Lord. Fully God, fully human. The Word became flesh. He

died, he rose, he opened the way. How this occurs—how eternity enters time, how divine and human unite, how one historical event redeems all history—remains beyond full comprehension.

The lemniscate offers one way of picturing it. Others have offered different images: military conquest over powers, ransom paid for captives, satisfaction rendered for honor, dramatic performance revealing truth, governmental demonstration of justice. Each image illuminates something; none exhausts the reality.

This model stands among those images—not replacing them but adding a geometric contemplation to the theological, legal, dramatic, and military pictures that tradition has employed.

**Transition: From Incarnation to Implication**

We have contemplated Christ as the orthogonal intersection of eternity with time—not one more event in temporal sequence but the unique crossing point where divine and human natures unite, where past and future converge, where the way through is opened.

The next chapter explores one particular implication of this framework: what does the opening of the crossing point mean for thermodynamic entropy? If resurrection is genuine—bodily transformation, not disembodied escape—how do we understand it in relation to the Second Law of Thermodynamics that governs physical processes within temporal succession?

The question is not whether Christ violates physical law (he does not— he is Lord of creation, not subject to it in ways that require violation). The question is what it means for the crossing point to open a dimension where thermodynamic description, while remaining true within its proper domain, does not exhaust reality.

Geometry meets physics. Eternity meets entropy. The crossing point opened.

## CHAPTER 7

### The Crossing Point and Thermodynamic Entropy

The previous chapters have contemplated Christ's death and resurrection as the opening of the crossing point—the restoration of access to eternal present while remaining within temporal existence. But a question arises when we consider the bodily nature of resurrection: How does this relate to the physical laws that govern temporal processes?

The Second Law of Thermodynamics establishes that entropy—disorder, dispersal of energy, degradation of structure—increases in closed systems over time. This law gives time its arrow: we can distinguish past from future by observing which state exhibits higher entropy. Resurrection, however, seems to reverse this trajectory: scattered elements reconstituted, degraded structure restored, death overcome by life.

Does resurrection violate thermodynamics? Or does the opening of the crossing point represent something categorically different—not violation of natural law but transition to a dimension where thermodynamic description, while remaining valid within its proper domain, no longer exhausts what is possible?

### The Second Law and Temporal Direction

The Second Law of Thermodynamics stands as one of physics' most robust principles. In any closed system, entropy tends toward maximum—energy disperses, structures degrade, order

gives way to disorder. A hot cup of coffee cools to room temperature. A sandcastle erodes back to scattered grains. A living body decays after death.

This law provides temporal direction. We experience time as moving from past to future precisely because entropy accumulates in that direction. We remember the past (lower entropy states) but not the future (higher entropy states). We observe causes preceding effects because causal processes increase entropy. The arrow of time aligns with the arrow of entropy.

For creatures existing within temporal succession, the Second Law appears absolute. We cannot reverse it through effort or technique. We cannot restore a scattered structure to its original order without expending energy that increases entropy elsewhere in the system. The total trajectory is always toward greater disorder.

Death represents the ultimate expression of this principle for living beings. The organized complexity that constitutes a living body —maintained far from thermodynamic equilibrium through constant energy input— collapses after death toward equilibrium with the environment. The body decays. Structures dissolve. The pattern that was "you" disperses into the surrounding matter.

This is not evil or unnatural. It is how physical processes operate within temporal succession. The Second Law governs the domain it describes with remarkable consistency.

**Why Resurrection Seems Impossible**

Given the Second Law's apparent absoluteness within temporal succession, bodily resurrection seems thermodynamically incoherent. How can scattered elements be reconstituted? How can degraded structures be restored? How can what has dissolved into maximum entropy return to organized complexity?

Some have attempted to resolve this by spiritualizing resurrection —suggesting that "resurrection" means survival of an immaterial soul rather than reconstitution of the body. But this contradicts both Scripture (1 Corinthians 15 insists on bodily resurrection) and the Creed ("I believe in the resurrection of the body"). Christianity has always affirmed bodily resurrection, not mere spiritual survival.

Others suggest that God simply overrides thermodynamics—performing a miracle that violates natural law. But this picture makes God compete with physical processes rather than transcending them. It imagines divine action as force applied within the system rather than transformation from beyond the system.

The lemniscate framework may suggest a different approach. If the crossing point represents intersection of temporal succession with eternal presence, and if resurrection involves passage through that crossing point, then resurrection is not entropy reversal *within* the thermodynamic system but dimensional transition *beyond* thermodynamic description.

**Dimensional Transition Beyond Thermodynamic Description**

Consider again the geometric picture developed in previous chapters. Temporal succession—the domain where entropy increases— is movement along the lemniscate curve. The Second Law governs processes within that movement. Entropy accumulates as we traverse the curve forward.

But the crossing point represents intersection with a dimension beyond temporal succession—the eternal present that grounds the temporal curve. Passage through the crossing point, as a theological image, is not movement to a different location *along* the curve (which would still be subject to thermodynamic law) but transition *through* the threshold to participation in the eternal dimension.

Christ's resurrection may be contemplated as revealing this pattern. The tomb is empty—the physical body is gone— but Jesus is not simply restored to pre-crucifixion existence (which would still be subject to entropy and eventual death). He is transformed. The resurrection body is recognizably his (he eats, speaks, bears wounds) yet no longer bound by ordinary physical constraints (he appears in locked rooms, vanishes from sight).

This suggests that resurrection is not matter miraculously reordered *despite* entropy but matter participating in a mode of existence where entropic description no longer applies as it does within pure temporal succession. The Second Law remains valid within its domain—temporal processes along the curve. But passage through the crossing point opens access to existence beyond that domain.

A helpful image may be that of shadow and substance. A shadow participates in the form of the object that casts

it, yet lacks its dimensional fullness. If the object were to enter the plane of its projection, the shadow would not be abolished but fulfilled—its source now present within the field where only outline had previously appeared. Resurrection may be contemplated not as reversal within the shadow-world of entropy, but as the presence of dimensional fullness within it.

Similarly, resurrection might be understood not as forcing entropy backward within temporal succession but as divine action from the eternal dimension—the crossing point opened by Christ— that transforms matter's relationship to temporal constraints without violating the laws that govern temporal processes.

**Not Violation But Transcendence**

An important distinction: The framework proposed here does not claim that God violates natural law or that thermodynamics is “wrong." The Second Law accurately describes what occurs within closed physical systems evolving through time. It is not illusion or approximation but genuine truth within its proper domain.

What the crossing point model suggests is that this domain—temporal succession governed by thermodynamic law—does not exhaust reality. There is a dimension beyond it: the eternal present that grounds temporal existence. Access to that dimension, opened by Christ's passage through the crossing point, allows transformation that transcends thermodynamic constraints without violating them.

Think of it this way: The laws of chess are absolute *within the game*. But the player who moves the pieces is not subject to those constraints, operating from beyond the game while acting within it.

One might picture the relationship not as a player manipulating pieces within the board's constraints, but as an author relating to the narrative world of a novel. Characters experience events sequentially, bound by the story's internal logic. The author, however, stands outside that sequence while remaining intimately present to every moment within it. Intervention does not violate the narrative's reality; it expresses authorship over it.

Similarly, thermodynamic law governs processes within temporal succession. But divine action from the eternal dimension—intersecting time at the crossing point— operates from beyond temporal succession while transforming what occurs within it.

This is why grace does not compete with nature. Grace opens nature to participation in the dimension that grounds it. Resurrection is not nature violated but nature fulfilled—matter achieving the mode of existence for which it was always intended, grounded in eternal participation rather than exiled in pure succession.

**Implications for Eschatological Hope**

If resurrection involves dimensional transition through the crossing point rather than entropy reversal within temporal succession, several implications follow for Christian eschatological hope.

**The resurrection body is genuinely material.** We do not hope for disembodied existence or spiritual essence replacing physical matter. The same matter that constitutes our temporal bodies participates in resurrection—transformed, yes, but continuous with what was. "This mortal body must put on immortality" (1 Corinthians 15:53), not abandon mortality for something entirely different.

**Continuity through transformation.** Just as Christ's resurrection body bore the wounds of crucifixion yet was no longer subject to death, our resurrection bodies will be recognizably ours yet transformed. The pattern that constitutes personal identity—the organized complexity that endures as the self—persists through passage into the eternal dimension. Death scatters; resurrection reconstitutes. But the reconstitution is not reversal within time, but transformation through the crossing point.

**Creation renewed, not replaced.** Revelation 21:5 declares "I make all things new," not "I make new things." If the entire material creation will participate in resurrection—"new heavens and new earth"— this suggests not destruction and replacement but transformation through passage into participation with eternal present. The lemniscate endures. What changes is the mode of existing within it: from exile in pure succession to grounding in eternal participation.

**Present participation as foretaste.** If the crossing point is already opened—if access to eternal present is available now through faith and sacrament— then we can experience foretastes of resurrection life even while still subject to entropy within temporal succession. Prayer, Eucharist, contemplative dwelling in present attention—these are not escape from time but momentary participation in the dimension beyond time that will fully characterize resurrection existence.

**Death transfigured, not abolished prematurely.** We still die. Entropy still increases within our temporal bodies. The Second Law has not been suspended. But death is no longer ultimate. It is passage toward the threshold, the crossing point where transformation occurs. We traverse the curve to its conclusion, then pass through to existence grounded in eternity. Death becomes transition rather than termination.

**What About Miracles?**

A related question: If resurrection is dimensional transition beyond thermodynamic description, what about other miracles—healing, multiplication of loaves, water into wine? Do these also represent crossing point access rather than thermodynamic violation?

The framework suggests a tentative yes. Miracles might be understood not as God overriding natural law within temporal succession but as moments when the eternal dimension intersects time in ways that manifest what lies beyond thermodynamic constraints. The healing of the paralytic (Mark 2:1-12), the feeding of the five thousand (John 6:1-14), the raising of Lazarus (John 11:1-44), these might be brief openings of the crossing point, foretastes of what full resurrection will permanently establish.

This proposal does not explain how miracles occur; it offers only a way to imagine their relation to created order. The mystery of divine action remains. What the framework provides is a contemplative picture that may help us hold together God's transcendence and God's intimate presence to creation without imagining competition between divine and natural causality.

This does not reduce miracles to natural processes misunderstood. They remain genuinely miraculous—divine action transforming what occurs within time. But rather than picturing them as violations requiring God to "break" physical law, we might see them as intersections where the eternal dimension that grounds physical law manifests directly within temporal succession.

The difference matters for how we understand divine action. God is not a force competing with other forces within the system. God is the ground of the system, operating from beyond it while remaining intimately present to every moment within it. Miracles are not God suspending the rules but God acting from the dimension that establishes the rules, transforming outcomes without violating the processes that govern them within their proper domain.

**The Limit of Thermodynamic Description**

A final clarification: This chapter does not claim that thermodynamics is incomplete or that the Second Law will someday be revised. Within its proper domain—closed physical systems evolving through time—thermodynamics provides accurate, complete description.

What the crossing point model suggests is that this domain, while accurately described, is not ontologically ultimate. Temporal succession is real, but it is grounded in eternal present. Physical processes are genuine, but they participate in a dimension beyond physical description. Thermodynamic law governs what occurs within time, but time itself exists within a larger reality where different principles apply.

This is the crucial move: not denying the validity of thermodynamic description within its domain, but suggesting that the domain itself —temporal succession— is embedded in eternity. The description remains accurate. The scope of reality exceeds what that description can capture.

Theologians call this the distinction between natural and supernatural orders, or between creation and grace. The lemniscate model offers a geometric picture for how these orders might relate: not as competing forces but as temporal succession (natural) grounded in eternal present (supernatural), with the crossing point representing the threshold between them.

Resurrection, then, is not thermodynamic impossibility within the natural order but participation in the supernatural order that grounds and transcends the natural. The Second Law remains true. Entropy still increases along the temporal curve. But passage through the crossing point opens access to existence beyond the curve's constraints, existence that was always the intended consummation of the temporal journey.

**Transition: From Physics to Practice**

We have contemplated how the crossing point might relate to thermodynamic entropy—suggesting that resurrection is not violation of natural law but dimensional transition beyond thermodynamic description. This preserves both the validity of physics within its domain and the reality of resurrection beyond that domain.

But how do individual Christians, still subject to entropy within temporal succession, access this opened threshold? How does Christ's once-for-all passage become repeatedly available across the centuries to those of us who still age, decay, and die?

The next chapter turns to the Church’s answer: the sacraments—not mere symbols, but the enduring means by which Christ’s eternal work remains present within time.

The way is open. The threshold accessible. Now we explore how we participate.

## CHAPTER 8

## Sacramental Time: Repeated Access to the Crossing Point

Christ opened the crossing point. The way is accessible. But a practical question emerges: How do individual Christians, living centuries after the historical events of Good Friday and Easter, access this threshold? How does the once-for-all passage become repeatedly available to us who still traverse the temporal curve in exile?

The Church's answer is the Sacraments. These are not mere symbolic commemorations or memory aids but genuine participations in the crossing point, encounters with the eternal dimension that Christ opened, accessible from various positions along the temporal curve even as we continue our journey through temporal succession.

This chapter explores how the lemniscate framework might illuminate sacramental theology, showing how Baptism, Eucharist, and Reconciliation function as repeated access to the threshold between time and eternity.

### Participation, Not Representation

A crucial distinction in Catholic sacramental theology: sacraments effect what they signify. They don't merely represent grace; they convey it. They don't simply remind us of Christ's work; they make us participants in it.

The Catechism teaches: "The Sacraments are efficacious signs of Grace, instituted by Christ and entrusted to the Church, by which divine life is dispensed to us" (CCC 1131). Not symbols pointing to absent reality but channels making present reality accessible.

This has always puzzled those who think linearly about time. If Christ's saving work occurred in AD 33, how can it be present to us now in AD 2026? If we're nearly two thousand years removed from the historical events, how do sacraments give us more than historical memory?

The lemniscate framework offers a contemplative picture. If the crossing point represents the intersection of eternity with time, and if that intersection remains accessible from all positions along the temporal curve, then sacraments might be understood as the Church's established ways of accessing that threshold from wherever we are on our temporal journey.

We neither travel backward through time nor multiply Christ’s sacrifice. From our position along the temporal curve, we access the once-for-all crossing point that remains eternally present.

**Baptism: Entry Into Access**

Baptism marks entry into the Christian life. Traditional theology speaks of dying and rising with Christ (Romans 6:3-4), being incorporated into his body (1 Corinthians 12:13), becoming a new creation (2 Corinthians 5:17).

The lemniscate model offers an image for these realities. Baptism might be contemplated as the moment when we are granted access to the crossing point. Before Baptism, we traverse the temporal curve in exile—cut off from the participation in eternal present that Adam lost. Through Baptism, we are given entry into the way Christ opened.

This doesn't remove us from temporal succession. We still experience time as sequence. We still age, struggle with memory and anticipation, rush through the fleeting present. But we now have access to the threshold —the capacity, through grace, to participate in the eternal dimension even while remaining temporal creatures.

The baptismal imagery of washing makes sense here. We are cleansed not merely from moral guilt but from the condition of being cut off. The water symbolizes passage through—not drowning (death to old life) but emerging (entrance into new mode of existing within time).

Baptism is unrepeatable because access, once granted, endures. We may fail to use that access, may turn away from the threshold, may rush past it in distraction. But the fundamental capacity remains. The crossing point stays open to us.

**Eucharist: Repeated Intersection**

If Baptism grants access, the Eucharist is the repeated participation in what that access opens. Catholic theology insists on the real presence —Christ truly present, not symbolically, in the consecrated elements. But how can this be, if Christ ascended to heaven two thousand years ago?

Seen through the lemniscate lens, Eucharist becomes participation in the crossing point from our position along the temporal curve. When we celebrate Mass, we do not travel backward to the Last Supper or to Calvary. Those events occurred at specific historical moments and do not recur. But Christ, having passed through the crossing point, relates to the entire temporal curve from the eternal dimension.

The Eucharist makes this accessible. Through the sacrament, we participate in the one sacrifice that occurred historically but remains eternally present because it is the crossing point itself—the decisive moment when eternity intersected time and opened the way through.

This illuminates several aspects of Eucharistic theology:

**Real presence across temporal distance.** Christ is not "back there" in the past, inaccessible to us now. He is present to all moments from the eternal dimension. The Eucharist gives us access to that presence from our temporal location.

**Sacrifice made present, not repeated.** The Mass is not a new sacrifice but participation in the one sacrifice. The crossing point is not repeated but made present, accessed again and again from different positions along the curve.

**Communion as temporal solidarity.** When we receive Eucharist, we join not only with Christ but with all who have ever or will ever participate in this sacrament—past, present, and future united at the threshold where temporal distinctions meet eternal simultaneity.

**Transformation through participation.** "Those who eat my flesh and drink my blood abide in me, and I in them" (John 6:56). Participation in the crossing point transforms us, training us to dwell at the threshold rather than rushing past it in exile.

**Reconciliation: Restoration of Access**

If Baptism grants access and Eucharist provides repeated participation, Reconciliation restores access when we forfeit it through serious sin.

Catholic theology distinguishes mortal sin—which severs our relationship with God— from venial sin—which damages but doesn't destroy that relationship. The lemniscate model offers an image: mortal sin might be understood as turning away from the crossing point entirely, choosing exile over access. We remain on the temporal curve but cut ourselves off from the threshold that Baptism opened.

Reconciliation reopens what we closed. Through confession, absolution, and penance, we are restored to access. The priest, acting in *persona Christi*, declares: "I absolve you from your sins in the name of the Father, and of the Son, and of the Holy Spirit." The threshold may be understood as becoming permeable again. The way is open.

This Sacrament acknowledges a sober reality: access can be forfeited. We can turn away. We can choose pure succession over grounded participation. We can exile ourselves even while the crossing point remains structurally open.

But it also proclaims profound hope: access can be restored. No matter how far we've rushed past the threshold in distraction or rebellion, we can return. The crossing point remains open by grace to those who seek it. The way stays accessible through divine mercy.

**Learning to Dwell at the Threshold**

If Sacraments provide access to the crossing point, spiritual life involves learning to use that access well—training ourselves to dwell at the threshold rather than rushing past it.

Contemplative practice across Christian traditions recognizes this. Prayer is not escape from time but learning to inhabit time rightly —attending to present moment, releasing grip on past and future, dwelling in the now where God is always present.

The lemniscate model pictures what this practice accomplishes. We remain on the temporal curve, still experiencing succession. But through discipline and grace, we learn to maintain awareness of the crossing point even as we traverse the curve. We taste eternal present while still moving through temporal sequence.

This is why liturgical rhythm matters. Daily prayer, weekly Eucharist, yearly cycle of seasons—these train us in return, coming back again and again to the threshold. Not because God is absent between these moments but because we

are distracted, swept along by succession, forgetful of the access we've been given.

The Rule of St. Benedict structures an entire day around returning to prayer at regular intervals (Lauds, Prime, Terce, Sext, None, Vespers, Compline). Not legalism but wisdom: we need training. Left to ourselves, we rush. We need rhythm to practice dwelling.

Sacraments provide the most concentrated access—the moments when the crossing point is most clearly manifest. But they train us for all moments, teaching us to recognize that the threshold is always available, that we can live receptive to the ever-offered access rather than being swept past it in distraction.

**Sacraments and the Shape of Christian Life**

The lemniscate framework suggests that Christian life has a particular shape determined by sacramental structure.

**Baptism marks beginning but not completion.** We enter the way at conversion, but the journey continues. We have access to the threshold, but we still traverse the temporal curve. The Christian life is not immediate arrival but trained progression, learning to use the access we've been given.

**Eucharist provides sustenance for the journey.** We return weekly (or daily) not because one Mass was insufficient but because we need repeated participation. We need training in dwelling. We need to taste again and again the eternal present that grounds our temporal succession.

**Reconciliation acknowledges our failures and restores us.** We turn away. We rush past. We forget. But the way can be reopened. We can return to the threshold. Grace persists even when we fail to cooperate with it.

**Other Sacraments mark transitions.** Confirmation strengthens access. Marriage and Holy Orders consecrate particular vocations within the temporal journey. Anointing of the Sick prepares for passage through death toward the final crossing.

All of these sacraments relate to the crossing point—the threshold between temporal succession and eternal present that Christ opened. They are the Church's established ways of accessing what he made accessible, participating repeatedly in what occurred once for all.

**The Church as Sacramental Community**

This framework also illuminates ecclesiology. The Church is not merely an organization administering Sacraments, but the community formed by sacramental participation.

When we gather for Eucharist, we don't simply share a meal in memory of an absent founder. We participate together in the crossing point —accessing from our various temporal locations the eternal dimension that unites us. The Church is constituted by this repeated participation, this ongoing return to the threshold.

This is why the Church is called the Body of Christ (1 Corinthians 12:27). Not metaphorically but really. Through sacramental participation, we are incorporated into Christ—united with him at the crossing point, dwelling together at the threshold between time and eternity.

The visibility of the Church matters because Sacraments are not purely interior or individual. They are embodied, communal, enacted through physical elements (water, bread, wine, oil) and audible words. The crossing point intersects not just individual souls but the material, social, historical reality of human existence.

We need each other for this. The priest who baptizes, the community that witnesses, the bishop who confirms, the spouse who vows, the sick who receive anointing, all of these are bound together by participation in the one threshold that Christ opened. We access it together, train each other in dwelling at it, restore each other when we turn away from it.

**Cautions and Clarifications**

The lemniscate model of sacramental time does not claim to explain how sacraments work. The mystery of real presence, the efficacy of absolution, the transformation worked by baptism, these remain mysteries that the model can only picture contemplatively, not explain mechanically.

What the framework offers is a way to imagine how Christ's once-for-all work remains accessible across temporal distance. Not by traveling backward, not by repetition, but by accessing from our position on the temporal curve the

eternal dimension that his passage through the crossing point opened.

Traditional theology already teaches this through different language: the sacraments make present what they signify, Christ is present to all times from his eternal life, Grace operates across temporal boundaries. The lemniscate provides a geometric image for truths the Church has always confessed.

The model also doesn't reduce sacraments to technique. We don't "access the crossing point" through proper ritual performance as if controlling divine presence. Sacraments are gifts—God's action through established channels, not our manipulation of spiritual forces. The crossing point is open because Christ opened it, and it remains open by grace, not by our efforts to force access.

**Transition: From Sacrament to Season**

We have contemplated the sacraments as repeated access to the crossing point—moments when the threshold between time and eternity becomes most clearly manifest within our temporal journey. Baptism grants entry, Eucharist provides repeated participation, Reconciliation restores access when forfeited.

The sacraments stand as the Church’s enduring participation in Christ’s once-for-all passage—moments where eternity touches the faithful within time. Yet this participation unfolds within a larger temporal rhythm that orders the Church’s life.

The next chapter explores this liturgical structure, showing how the Church's yearly cycle trains us in the pattern of return that characterizes Christian life.

By way of analogy, this pattern resembles epochs in machine learning —repeated engagements with the same material yielding deepened understanding. Yet unlike algorithmic refinement, liturgical return forms the soul through grace, not computation.

The sacraments give us access. The seasons teach us to use it.

# PART III IMPLICATIONS

## CHAPTER 9

## Liturgical Epochs: Return as Deepening

The Sacraments provide access to the crossing point—moments when the threshold becomes most clearly manifest. But sacramental participation occurs within a larger temporal rhythm: the liturgical year. Advent, Christmas, Lent, Easter, Ordinary Time, these seasons cycle annually. Same readings. Same prayers. Same mysteries contemplated.

From outside, this looks repetitive. Nothing new happens. We return to the same material year after year. Yet the Church insists that something real occurs through this structured recurrence. We are not simply cycling but deepening. We return, but we do not return unchanged.

This chapter explores how the liturgical year trains us in the pattern of return that characterizes Christian life, and how an unexpected analogy from machine learning may illuminate what the Church has always known about formation through repeated engagement.

### The Pattern of Liturgical Return

The liturgical calendar structures the Church's year around recurring seasons:

**Advent:** Preparation, waiting, anticipation of Christ's coming.

**Christmas:** Incarnation, God entering time.

**Ordinary Time:** Growing in discipleship.

**Lent:** Repentance, self-examination, preparing for Easter.

**Holy Week:** Passion, death, descent.

**Easter:** Resurrection, the crossing point opened.

**Ordinary Time:** Maturation, living from resurrection

Then the cycle begins again. Next Advent. Next Christmas. Next Lent. Next Easter.

The readings follow this pattern. The same Gospel passages recur. The same Pauline epistles. The same Psalms. Year after year, the Church returns to the same texts, contemplates the same mysteries, prays the same prayers.

To someone unfamiliar with Christian practice, this might seem pointless. Why not read through the entire Bible once and move on? Why keep returning to the same material? What could possibly be gained from the thousandth hearing of the Christmas story or the resurrection accounts?

The Church's wisdom is ancient: repetition is not the enemy of depth but its condition. Where Nietzsche imagined

recurrence as existential burden, the liturgical year reveals it as a path of transformation. We return not because we have forgotten but because we have not yet fully understood.

We cycle through the seasons not because the seasons are insufficient but because we are.

**Why Recurrence Is Not Stagnation**

A crucial distinction: the liturgical year is cyclical in structure but progressive in effect. The pattern repeats, but we do not simply return to where we were.

Think of a spiral staircase. You circle around the same central axis repeatedly—each revolution brings you back to the same position relative to the center. But with each circuit, you are higher than before. You pass the same point, but from a different elevation.

The liturgical year works similarly. Each Advent brings you back to waiting, to preparation, to anticipation. But you are not the same person who waited last Advent. History has accumulated in you. Your memory has thickened. Your needs have changed. Your understanding has (hopefully) deepened.

So recurrence becomes the means of formation. We pass again through the same material, but with updated capacity to receive it. What we could not grasp last year becomes accessible this year. What seemed clear before reveals new depths upon return. The text hasn't changed; we have.

This is profoundly Augustinian. Augustine teaches that time exists in the soul—we carry history with us as we move forward. The liturgical year recognizes this: it provides structured occasions for encountering the same truths from progressively transformed positions within our own temporal journey.

**Machine Learning Epochs: An Illuminating Analogy**

An unexpected parallel appears in how artificial intelligence systems learn. Machine learning models are trained through "epochs"—complete passes through the training dataset. The model doesn't learn everything in one exposure. It requires repeated engagement.

Here's how it works:

**Epoch 1:** The model encounters all the training data. It makes predictions, compares them to correct answers, adjusts internal parameters slightly. Learning occurs, but incompletely.

**Epoch 2:** The same data, but the model is different now. Parameters were updated during Epoch 1. It encounters the same examples from a slightly refined position. More learning occurs.

**Epoch 3, 4, 5...** With each pass, the model's parameters adjust incrementally. The dataset never changes, but the

model's relationship to it does. Gradually, understanding converges toward accuracy.

What the model learns is not new data but deeper grasp of patterns within the same data. Repetition is not redundancy; it's the mechanism of understanding. The material remains constant; the learner transforms through repeated exposure.

This offers a striking analogy for liturgical formation. The readings are the "training data"—they don't change. We are the "model" being trained, we change with each pass. The liturgical year provides the structure for epochs: repeated exposure to the same material with progressively updated "parameters" (our spiritual maturity, life experience, accumulated wisdom).

To be clear: this analogy does not reduce spiritual formation to computational process. Human beings are not algorithms. But the parallel is instructive. Both systems recognize a profound truth: depth comes through return, understanding matures through repeated engagement, and what appears as repetition from outside is actually progressive refinement from within.

**Advent: The First Return**

Consider Advent specifically. Each year, we return to themes of waiting, watching, preparing. We light candles week by week. We hear Isaiah's prophecies. We contemplate John the Baptist's call to repentance. We anticipate Christmas.

But consider how different this can be depending on where you are in life:

**A child experiences Advent** as exciting anticipation of gifts and celebration, legitimate joy in created goods, training in anticipation itself.

**A young adult might encounter Advent** as spiritual longing, recognition of incompleteness, desire for fulfillment that earthly goods cannot satisfy.

**Someone in suffering** may experience Advent as crying out for deliverance, waiting in darkness for light, identifying with Israel's exile.

**An older person** might taste Advent as eschatological hope, not just remembering Christ's first coming or anticipating Christmas, but longing for his final return, the ultimate Advent when waiting ends.

Same readings. Same prayers. Same season. But experienced from different positions within one's temporal journey, each Advent reveals aspects invisible from other vantages. The liturgy doesn't change; your capacity to receive it does.

This is the genius of structured return. The Church doesn't invent new content every year but provides the same deep wells to which we return with progressively deeper buckets.

**Lent: Parameters Adjusting**

Or consider Lent's annual return. Forty days. Same readings about temptation, repentance, preparation. Ash Wednesday: "Remember you are dust." Good Friday: the passion narrative again. Holy Saturday: waiting again.

Someone early in Christian life might experience Lent primarily as external discipline, fasting, giving up comforts, moral effort. The emphasis falls on what *I* must do.

Years later, returning to Lent, the same texts reveal different depths. Perhaps now the emphasis shifts to recognizing one's poverty before God, the insufficiency of effort, the need for Grace. Less "what I do," more "what God does."

Still later, Lent might become primarily about solidarity with Christ's suffering, participation in the crossing point, training to dwell at the threshold rather than rushing past. The discipline becomes less about achievement and more about receptivity.

Same Lent. Same readings. But one’s disposition have adjusted. What you attend to has shifted. How you understand has deepened. The liturgy provided the training data; repeated exposure gradually refined your relationship to it.

This is not automatic. Someone could cycle through Lents for decades without deepening—hearing without listening, participating without receiving, returning without

transformation. The liturgical structure provides opportunity, not guarantee. But for those who engage attentively, return becomes the means of progress.

**Easter: The Unchanging Center**

Easter stands at the heart of the liturgical year, the crossing point around which all seasons orient. We return to it annually, yet it remains singular, unrepeatable, once-for-all.

How can this be? How can we return to what occurred uniquely?

The historical Easter—Christ's death and resurrection in AD 33—is the crossing point itself, where eternity entered time. Fixed in history, yet not confined to it, this event remains accessible from every position along the temporal curve.

Each liturgical year brings us back to Easter not by time travel but by structured return to contemplation of the threshold. We don't make Easter happen again; we participate again in what happened once. The event is singular; our access to it is repeated.

And each return reveals more. The first Easter you experience as a Christian might overwhelm with sheer joy—He is risen! Later returns might reveal the cost (the Cross precedes resurrection), the mystery (death destroyed by death), the implications (we too will rise). No single Easter liturgy exhausts the reality. We return because

finite minds require repeated engagement to approach infinite truth.

**Ordinary Time: Living From the Return**

Between the great seasons lie stretches of Ordinary Time—the green seasons when no particular festival dominates. From the outside, these seem like "filler" between important moments. But ordinary time serves crucial purpose.

After Advent and Christmas, Ordinary Time provides space to integrate what was received. After Lent and Easter, more Ordinary Time allows us to live from resurrection rather than merely celebrating it. The liturgical year breathes: intensity followed by integration, festival followed by incorporation.

This mirrors the pattern of Christian life. We don't live constantly in mystical heights. We have ordinary days requiring ordinary faithfulness —work, family, struggle, small choices. Ordinary Time trains us to carry what we received in the seasons into daily existence.

The epochs analogy applies here too. In machine learning, the model doesn't improve only during intense training sessions. It improves through applying what it learned to new examples, testing whether parameters have actually converged toward truth. Ordinary Time is where we test whether Advent's longing and Lent's discipline and Easter's joy have actually transformed us or merely passed over us.

**You Are Not the Same Person**

The crucial insight that makes liturgical return formative rather than repetitive: *you are not the same person* who encountered these mysteries last year.

Twelve months have passed. You've aged. You've experienced joys and losses, successes and failures, insights and confusions. You've been shaped by events, relationships, choices. The person returning to Advent this year carries history that last year's Advent attendee did not yet possess.

So when you hear the same readings, they address a different person. When you pray the same prayers, they're prayed from a different position within your temporal journey. When you contemplate the same mysteries, you bring different questions, different needs, different capacity.

This is why the Church's liturgical conservatism serves formation. If the readings changed every year, if we constantly innovated new prayers, if each liturgy invented fresh material, we would lose the benefit of return. We would always be beginners encountering novelty rather than mature disciples deepening understanding.

The liturgy trusts that the Gospel is inexhaustible. It doesn't need novelty because it offers depth. It cycles through the same material because that material contains more than any single encounter can grasp. We return not because we've mastered it but because we haven't, and perhaps never fully will this side of eternity.

**Training Through Structured Return**

The liturgical year, then, functions as spiritual formation through structured recurrence. Not rote repetition but progressive refinement. Not meaningless cycling but spiral ascent. Not stagnation but convergence toward deeper participation in the mysteries celebrated.

This connects back to sacramental life. The Eucharist we celebrate at Christmas is the same Eucharist celebrated at Easter, the same we'll celebrate in Ordinary Time. But our capacity to receive what it offers grows through training in return—learning to attend, to receive, to dwell at the threshold rather than rushing past.

Contemplative prayer operates similarly. We don't pray once and finish. We return daily, often saying the same prayers, contemplating the same mysteries, sitting in the same silence. Not because once was insufficient but because depth requires return, because transformation happens gradually, because we learn to dwell by practicing dwelling.

The monastic tradition understood this profoundly. Benedict's Rule structures the day around returning to prayer at regular intervals. The same Psalms cycle through weekly. The same prayers at the same hours. Year after year, decade after decade, the monk returns. Not because the prayers change but because the one praying does.

**From Structure to Freedom**

A paradox emerges: structured return produces freedom. By cycling through the same seasons, we gain capacity to improvise. By praying the same prayers, we learn to pray spontaneously. By returning to the same texts, we discover how to encounter God in new situations.

This is true in music: jazz musicians master scales through endless repetition before improvising. It's true in athletics: athletes drill basic movements thousands of times to achieve fluid performance. And it's true spiritually: fidelity to the liturgical pattern trains us for moments when no liturgy guides us.

The liturgical year doesn't imprison us in rote practice. It schools us in the rhythms of waiting and celebrating, repenting and rejoicing, dying and rising, rhythms that carry over into all of life. Once trained through structured return, we recognize Advent's longing in unexpected moments of incompleteness. We identify Lenten struggle in ongoing temptation. We taste Easter hope in small resurrections that daily life provides.

The structure liberates precisely by training. Form produces freedom. Return enables progress.

**Transition: From Seasons to Systems**

We have explored how the liturgical year trains through structured return—providing repeated exposure to the same mysteries so that we, changing through accumulated experience, can receive them more deeply with each pass.

Like epochs in machine learning, each cycle refines our understanding without changing the essential content encountered.

But the Church's training extends beyond the yearly cycle. The next chapters explore specific patterns that recur: the chicken-egg paradox resolved through eternal simultaneity, the challenge to Markovian assumptions about history and memory, and the relationship between creation's journey and evolutionary development.

The liturgical year is the large-scale pattern. Now we examine particular puzzles that the lemniscate framework may illuminate, questions that have perplexed philosophy and theology—questions that recurrence itself helps us address.

The training continues. The spiral ascends.

**CHAPTER 10**

## The Lemniscate and Markovian Time

The previous chapter explored how the liturgical year forms the faithful through structured return, repeated encounter with the same mysteries allowing progressive deepening. This pattern raises a broader question about how temporal processes operate.

Modern computational and decision-theoretic frameworks frequently rely on what are called Markov models—systems structured around the assumption that the future depends only on the present state, not on the path taken to reach it.

This chapter considers whether that powerful modeling assumption reflects reality's deepest structure or whether it functions as a pragmatic simplification that, while effective within its domain, leaves dimensions of temporal existence unaccounted for.

Modern computational and decision, theoretic frameworks often employ what are called Markov models. These have proven extraordinarily useful across domains: artificial intelligence, economics, operations research, systems analysis. Their core assumption is elegant and powerful: the future depends only on the present state, not on the path taken to reach it. History, once encoded in the current configuration, can be discarded.

This chapter asks whether this useful modeling assumption should be understood as describing ultimate reality, or whether it represents a practical simplification that, while effective within its domain, may not capture the full richness of temporal existence when considered from theological and philosophical perspectives.

**What Markov Models Are and Where They Excel**

A Markov Decision Process (MDP) is a mathematical framework for modeling sequential decision-making under uncertainty. The defining property is memorylessness: the probability of transitioning to any future state depends only on the current state, not on the sequence of states that preceded it.

Formally: P(future | present, past) = P(future | present)

This assumption enables tractable analysis. Instead of tracking entire histories (which would require exponentially growing computational resources), the model needs only to know the current state. This makes Markov models extremely powerful for:

**Artificial intelligence:** Reinforcement learning algorithms that train agents to make optimal decisions use Markov frameworks extensively. The agent learns which actions to take based on current state observations without needing to store complete histories.

**Operations research:** Scheduling, inventory management, queueing theory, all rely on Markovian assumptions. As

someone working in airport operations, I've seen firsthand how these models optimize staffing, gate assignments, and passenger flow by treating current conditions as sufficient for decision-making.

**Finance and economics:** Option pricing, portfolio optimization, and macroeconomic forecasting often employ Markov chains. The current market state is assumed to contain all relevant information for predicting future movements.

**Natural language processing:** Many text generation models treat word sequences as Markov chains, where the next word depends only on the previous N words (N-gram models), not on the entire document history.

The effectiveness of these applications is undeniable. Markov models work. They produce results. They enable technologies we use daily. This is not speculative mathematics but proven engineering.

**The "Memoryless" Property Explained**

The term "memoryless" can be misleading. It sounds as if Markov systems literally forget the past, discarding history entirely. But this isn't quite accurate.

Consider a trained neural network, a modern AI system that often employs Markovian assumptions during operation. Once trained, the network's current state (its weights and biases) encodes everything learned from training data. When the network processes a new input, it uses only its current

state to generate output. It doesn't explicitly reference the training examples.

Yet those training examples shaped the current state. The past isn't absent; it's compressed into structure. History isn't discarded; it's sedimented into the present configuration.

This is what "memoryless" actually means in Markov models: not that history is irrelevant, but that history's influence operates entirely through the present state. The system doesn't need to explicitly remember what happened; it carries history implicitly in how it's currently configured.

From an engineering perspective, this is brilliant. It means we can make decisions efficiently without storing and processing entire histories. From a philosophical perspective, however, it raises questions: Does this modeling assumption describe how reality fundamentally operates, or does it represent a pragmatic simplification that works for specific purposes while leaving something out?

**Compressed History vs. Discarded History**

The lemniscate framework may invite us to consider this distinction more carefully.

If temporal succession involves movement along a curve where past and future relate structurally (the loops meet at the crossing point), then history isn't simply encoded in present state and then discarded. The past remains

connected to the future through the curve's geometry. What was doesn't just shape what is; it relates to what will be through the structure itself.

This suggests that the Markovian assumption—while extraordinarily useful for modeling— may not capture the full ontological reality of temporal existence. History may also be contemplated as operating not only through sedimented influence on the present (which Markov models handle) but also through direct structural relationships between past and future that the present mediates but doesn't exhaustively contain.

Consider an example from personal experience. When you encounter someone you haven't seen in years, the relationship resumes not just from "current state" (who you both are now) but also from patterns established in the past that the present doesn't fully encode. There's a structural connection to shared history that can't be reduced to present configuration.

Or consider liturgical return, explored in the previous chapter. When we return to Advent this year, we don't simply bring "current state" (who we are now). We bring accumulated history—memory of previous Advents, patterns of longing and fulfillment, structural relationships to the texts we've encountered repeatedly. The past isn't just compressed into present disposition; it remains structurally present through recurrence.

The lemniscate model pictures this: past positions on the curve don't disappear once traversed. They remain part of the structure. The curve loops back. What *was* relates to what *will* be not only through present mediation but through the geometry of return.

**When Modeling Assumptions Become Metaphysical Principles**

The danger isn't with Markov models themselves but with extending their assumptions beyond their proper domain. When a useful engineering simplification becomes a philosophical claim about reality's fundamental nature, we risk confusing practical tractability with ontological completeness.

This happens subtly. Because Markov models work so well for so many applications, and because they dominate contemporary computational thinking, their assumptions can begin to feel like descriptions of how things really are rather than useful approximations within specific contexts.

We might start thinking: "History doesn't really matter except as it's encoded in the present." Or: "The past is genuinely gone once its influence is compressed into current state." Or: "Patterns of recurrence are just coincidences that happen to emerge from present configurations."

But these are metaphysical claims, not engineering principles. They assert something about ultimate reality based on what works well for modeling within limited domains.

The lemniscate framework doesn't claim Markov models are wrong for their applications. It suggests that reality may be richer than any single modeling framework captures. Temporal existence might involve both Markovian dynamics (present state encoding past influence) and non-Markovian structure (past relating to future through geometric patterns of return that the present mediates but doesn't exhaust).

To put it differently: Markov models accurately describe certain aspects of how we navigate temporal succession efficiently. But efficiency of navigation doesn't necessarily reveal the full structure of what we're navigating through.

**What the Lemniscate Adds (Without Replacing)**

The lemniscate framework isn't offered as an alternative to Markov models but as a complementary way of contemplating temporal structure that may illuminate aspects Markovian thinking doesn't capture.

Where Markov models emphasize present state sufficiency, the lemniscate emphasizes structural connection between past and future. Where Markovian thinking focuses on forward progression through state transitions, the lemniscate contemplates return and recurrence. Where Markov frameworks treat history as fully encoded in present configuration, the lemniscate invites consideration of whether history remains structurally present through patterns of return.

This isn't competition but complementarity. Different frameworks illumine different aspects. The question isn't "which is correct?" but "what does each help us see?"

For engineering purposes—optimizing systems, training algorithms, making efficient decisions—Markovian assumptions are often exactly right. They enable tractable solutions to complex problems. They work.

For theological and philosophical purposes—contemplating the nature of temporal existence, understanding redemption as opening access to eternal present, recognizing patterns of recurrence in salvation history—the lemniscate may offer insights Markovian thinking doesn't provide.

Both can be true within their domains. The Markov property accurately describes certain dynamics. The lemniscate structure invites contemplation of broader patterns. Neither exhausts reality.

**Implications for Understanding Recurrence**

If we take seriously both Markovian efficiency (for practical navigation) and lemniscate structure (for ontological contemplation), several implications emerge.

**Historical patterns aren't mere coincidence.** When similar situations recur across history—empires rising and falling, moral challenges repeating, human nature displaying consistent patterns—this isn't just random emergence from present conditions. It may reflect the curve's geometry, the way past and future relate structurally.

**Personal development involves return.** We don't simply move forward accumulating present state. We revisit the same issues, encounter recurring themes, face familiar temptations. This isn't failure to progress but recognition that the path involves spiraling through the same territory at different elevations.

**Liturgical wisdom recognizes structure.** The Church's commitment to recurring seasons, repeated readings, cyclical rhythms reflects intuition about temporal structure that Markovian thinking might dismiss as inefficient. But if reality involves return at its foundations, liturgical practice aligns with truth.

**Contemplative disciplines make sense.** Daily prayer, regular confession, repeated sacramental participation, these aren't failures to "move on" but engagement with the reality that formation happens through structured return, not just forward progression.

**Prophetic insight becomes intelligible.** If past and future relate structurally (not just through present mediation), then seeing what *will* be might involve perceiving patterns in what *was*. Prophecy becomes less like predicting from present state and more like glimpsing the curve's geometry from beyond sequential traversal.

None of this contradicts Markov models within their proper domain. It simply suggests that theological and philosophical reflection may need richer frameworks than practical engineering does.

**The Limits of Modelization**

A final note: This discussion itself illustrates an important principle. We're using geometric models (lemniscate), computational models (Markov chains), and analogical reasoning to contemplate mysteries that ultimately exceed all models.

Models are tools, not idols. They help us think, organize inquiry, see connections we might otherwise miss. But they don't capture reality exhaustively. The Markov framework is a tool. The lemniscate framework is a tool. Both are heuristics for contemplation, not blueprints of ultimate structure.

The danger in any modeling—whether mathematical, geometric, or theological—is mistaking the map for the territory, the tool for the reality it helps us approach.

So this chapter doesn't claim the lemniscate "proves" Markov assumptions wrong or "reveals" reality's true structure. It invites consideration of whether reality might be richer than any single framework captures, whether different tools illuminate different aspects, and whether theological contemplation benefits from frameworks that make space for return and recurrence alongside progression and state-dependence.

**Transition: From Structure to Learning**

We've explored how Markovian assumptions—extraordinarily useful for practical modeling—may not exhaust the ontological richness of temporal existence when considered from theological and philosophical perspectives. The lemniscate framework complements rather than replaces, inviting attention to patterns of return that Markovian thinking doesn't emphasize.

But these reflections on temporal structure remain abstract unless connected to lived experience. The next chapter turns to the intensely practical: How does the crossing point framework illuminate prayer? What light does it shed

on prophecy? How might contemplating temporal structure help us understand direct encounter with God?

From models to mystery. From theory to practice. From structure to spiritual life.

## CHAPTER 11

### Prayer, Prophecy, and Temporal Access

Having examined sacramental participation as the Church's objective access to the crossing point—Christ's once-for-all work made present through instituted signs—we now consider a more interior mode of approach. Prayer does not replicate sacramental presence, nor does it generate access independently. Rather, it disposes the soul to receive, perceive, and dwell more consciously within the same eternal intersection sacramentally given. If the sacraments constitute the structural gateways of participation, prayer forms the subjective habitation of that access.

How does the model illuminate prayer? What light does it shed on prophecy? How might contemplating the crossing point help us understand direct encounter with God across temporal distance?

These are not abstract questions but intensely practical ones. Christians pray daily. We intercede for others separated from us by space and time. We read prophetic texts claiming to reveal what was hidden. We invoke saints who lived centuries ago, asking their prayers now. We believe prayer "works" somehow—but how?

The lemniscate framework may offer a contemplative picture that honors both the mystery of prayer and its genuine efficacy without reducing divine-human encounter to mechanics.

**Prayer as Temporal Reorientation**

At its most fundamental level, prayer is attention to God. Not primarily asking for things (though petition is legitimate) but turning toward the One who grounds all temporal existence in eternal present.

The lemniscate model pictures what this might involve. We spend most of our time swept along the temporal curve, rushing from past to future, anxiously managing memory and anticipation, pulled by succession. Prayer is the discipline of stepping toward the crossing point, the threshold where temporal succession meets eternal presence.

We don't leave time. We remain temporal creatures experiencing sequence. But through prayer, we orient ourselves toward the dimension that grounds our temporal journey, learning to attend to eternal present even while moving through temporal succession.

This is why prayer requires stillness. Not physical immobility (though that can help) but interior quieting of the rush. We stop being swept along. We practice dwelling rather than hurrying. We train attention on the threshold rather than being pulled past it by distraction.

Classical spiritual writers understood this without geometric language; the saints already knew this in lived form. Teresa of Avila describes prayer as entering the interior castle, moving through rooms progressively closer to the divine presence at the center. John of the Cross speaks of ascending Mount Carmel, climbing toward union with God. Both images convey movement from temporal dispersion toward eternal grounding, what the lemniscate pictures as approaching the crossing point.

The model doesn't replace these images but may complement them. If temporal succession is movement along a curve, and if that curve is grounded in eternal present at the crossing point, then prayer is the repeated practice of orienting toward that grounding, learning to abide at the intersection rather than rushing past it in exile.

**Contemplative Presence and the Crossing Point**

Contemplative prayer traditions across Christianity emphasize present-moment awareness. Not dwelling in past (memory) or future (anticipation) but resting in the now where God is always present.

This can sound like mere mindfulness—a psychological technique for reducing anxiety. But Christian contemplation is more. It's not just attending to present moment but encountering the eternal present that grounds all moments—what the crossing point represents.

Brother Lawrence's The Practice of the Presence of God, the Jesus Prayer of Eastern Orthodoxy, Ignatian contemplation, Carmelite mental prayer, these diverse traditions share recognition that encounter with God happens in present attention, not distracted rush.

The lemniscate framework pictures why this might be so. If the crossing point represents intersection of temporal succession with eternal presence, then accessing that intersection requires being present to the present rather than lost in temporal dispersion. We can't dwell at the threshold while rushing past it. We can't access the crossing point while swept along by succession's current.

This doesn't mean God is absent when we're distracted. God remains present to every moment of temporal succession (God is omnipresent). But our capacity to receive that presence, to participate consciously in the grounding that sustains our existence, requires training in attention, learning to be present to the Present that underlies all presents.

Contemplative disciplines are not techniques to manipulate divine presence but practices that train us to recognize and receive what is always offered. The crossing point is always accessible (Christ opened it permanently). Prayer teaches us to live receptive to that access rather than rushing past it unconsciously.

**Intercessory Prayer Across Temporal Distance**

A puzzle arises: How does intercessory prayer work across temporal distance? When we pray today for someone who lived a century ago or will live a century hence, what are we doing?

Linear time models struggle here. If prayer occurs at moment T1 and the person prayed for exists at moment T2 (either past or future), how does prayer at T1 affect T2? Does prayer travel through time? Does God retroactively alter the past or preemptively arrange the future based on prayers not yet offered?

The lemniscate framework may invite a different contemplation. If the crossing point is accessible from all positions along the temporal curve, and if prayer involves accessing that threshold, then intercessory prayer might be

understood as participating in the eternal present where all moments meet.

When I pray today for someone who lived in the past, I access the crossing point from my temporal position (2026). They accessed it from their temporal position (say, 1926). We may be understood as meeting in the eternal present God sustains, not sequentially but in the simultaneity that belongs to God's eternal life, where temporal distance becomes permeable to grace.

This isn't time travel. Neither of us leaves our position on the temporal curve. But at the threshold where time meets eternity, temporal distance becomes permeable. The prayers I offer today can be understood as participating in the same eternal moment they inhabited, not because prayer moves backward through time but because both moments touch the eternal present at the crossing point.

Similarly for future intercession. When I pray for generations not yet born, I access the crossing point from now. They will access it from then. At the threshold, we participate together in the eternal dimension where past, present, and future distinctions don't apply as they do within temporal succession.

This framework preserves both the genuine temporality of prayer (I pray now, not then) and its efficacy across temporal distance (the prayer reaches its object through the eternal dimension both moments touch).

**Prophecy as Glimpsing the Curve's Geometry**

Prophecy has always puzzled philosophical accounts of time. How can someone know what hasn't happened yet? How can future events be seen before they occur?

Two inadequate answers: Either prophecy is extremely good guessing (predicting based on present trends), or prophets somehow peek at a deterministic future already fixed in advance (violating freedom).

The lemniscate framework suggests a third possibility. If the prophet, through grace, is granted a glimpse of the eternal perspective—seeing the temporal curve from beyond sequential traversal—then prophecy becomes neither prediction nor violation of freedom but glimpsing patterns in the structure itself.

God sees the entire curve simultaneously from eternal vantage. The prophet, ordinarily confined to sequential experience like all temporal creatures, is occasionally granted partial participation in that eternal view. Not time travel to the future but dimensional access to the perspective that sees past, present, and future together.

This aims to preserve human freedom (what is seen in a way that does not cancel freedom) while making prophecy intelligible (not prediction but vision). It also explains why prophetic utterances often seem strange or symbolic; the prophet struggles to express in temporal sequence what was glimpsed in eternal simultaneity.

Isaiah sees the glory of the Lord filling the temple (Isaiah 6). Is this past, present, or future? From the prophet's temporal position, it's complex—past liturgical memory, present encounter, future eschatological fulfillment. From eternal perspective, all are aspects of single reality glimpsed through the crossing point.

Similarly with apocalyptic prophecy. John sees what "must soon take place" (Revelation 1:1), yet the visions involve patterns that recur throughout history and point toward final consummation. Linear reading struggles—when does this happen? The lemniscate invites contemplation: John glimpses the curve's geometry, seeing patterns that manifest repeatedly (persecution, judgment, vindication) and culminate definitively (New Jerusalem).

Prophecy is not fortune-telling but seeing more deeply into the structure of temporal existence from participation in the eternal perspective that grounds it.

**The Communion of Saints and Temporal Solidarity**

Catholic tradition speaks of the communion of saints, the living and the dead united in Christ's body. We pray to saints, asking their intercession. They pray for us. But how, if they died centuries ago?

Linear time makes this hard. If Saint Francis died in 1226, how can he hear my prayer in 2026? Is there celestial mail delivery spanning eight centuries?

The lemniscate framework offers a more elegant picture. Saints who have died and passed through physical death have also passed through the crossing point into resurrection life, existence grounded fully in eternal participation rather than temporal succession.

They may be present to us through their participation in God's eternal life. Saint Francis in resurrection is not "back in 1226" nor "waiting in 2026" but dwelling in the eternal present that God is. When I pray to him today, I access the crossing point from my temporal position. He is present at that threshold through his participation in divine eternity.

This helps us see how both his genuine death (he lived temporally, died historically) and his present intercession (he lives eternally, prays now) might remain intact. The crossing point makes this coherent—temporal creatures who have passed through physical death into resurrection may be present to temporal moments through their participation in God's eternal life.

This also illuminates why the Church prays with the saints, not just to them. We don't simply ask them to petition God on our behalf (though that's valid). We participate together in the eternal present at the crossing point, our temporal prayers joining their eternal praise, united at the threshold where time meets eternity.

**Practical Disciplines for Dwelling at the Threshold**

If prayer involves accessing the crossing point and dwelling at the threshold, how do we train for this?

Classical spiritual disciplines provide tested practices:

**Regular hours for prayer.** Not just morning and evening but structured returns throughout the day (monastic offices, Angelus at noon, examination of conscience at night). These train us to step repeatedly toward the threshold, not waiting for spontaneous inspiration but establishing rhythm.

**Silence and solitude.** Creating space where the rush can quiet, where we're not pulled by external demands, where attention can settle. Not escaping temporal existence but learning to inhabit it from grounding rather than exile.

**Liturgical participation.** The Church's prayer joins us to the eternal worship, heaven and earth united at the threshold. We don't pray alone but with angels and saints, accessing the crossing point together through sacramental presence.

**Lectio Divina and contemplative reading.** Returning repeatedly to the same texts (especially Scripture), not rushing through for information but dwelling, allowing the words to train attention toward the eternal Word they mediate.

**Fasting and simplicity.** Reducing the input that keeps us distracted, pulled by appetite and acquisition. Training desire toward the One who satisfies ultimately rather than temporal goods that satisfy temporarily.

**Service and charity.** Encountering Christ in the neighbor (Matthew 25:40) grounds prayer in love. We don't seek the crossing point to escape others but to serve them from eternal grounding.

These aren't techniques to force access but practices that dispose us to receive what's offered. The crossing point remains open (Christ's gift). These disciplines train us to live receptive to that openness rather than rushing past it chronically.

**The Mystery Remains**

A necessary clarification: This framework doesn't explain how prayer works. The mystery of divine-human communion remains. God's freedom, grace, responsiveness to prayer, sovereignty over temporal process, all exceed geometric pictures.

What the lemniscate offers is a contemplative image that may help us hold together truths we confess: Prayer is real encounter (not just psychological effect). Prayer reaches across temporal distance (not bound by sequential limits). Prayer involves genuine human action (not divine monologue). Prayer changes things (not predetermined outcomes).

How all this works—the mechanics of divine action in time, the relationship between eternal knowledge and temporal freedom, the efficacy of prayer within God's providence—remains mysterious. The model provides vocabulary for contemplating the mystery, not solving it.

We return to ancient wisdom: Prayer is entering into relationship with God who is eternal present grounding all temporal succession. The crossing point pictures this relationship's structure without exhausting its reality. The image serves contemplation; the reality exceeds all images.

**Transition: From Present Access to Final Consummation**

We've explored how prayer and prophecy might be understood as accessing the crossing point from various temporal positions, remaining receptive, where time meets eternity, participating in eternal present while remaining temporal creatures.

But what happens at the end? When temporal succession reaches its consummation and the lemniscate completes its course, what final states await? Christian theology speaks of heaven, hell, and (in Catholic tradition) purgatory. How might the crossing point framework illumine these ultimate destinies?

Earlier, we considered how prayer and contemplative awareness allow the believer to encounter the crossing point within the present moment. That treatment concerned spiritual practice—how one learns, through grace, to reside more attentively at the threshold. We now widen the

horizon. What appears in prayer as intermittent participation is revealed in eschatological fulfillment as universal condition. The center encountered occasionally will become the atmosphere of redeemed existence itself.

The next chapter explores three eschatological outcomes; three ways temporal creatures might finally relate to the eternal dimension that grounds their existence. Not three places but three modes of existing at the threshold: full participation (heaven), permanent refusal (hell), and transformative passage (purgatory).

The threshold opened by Christ. The question is: How will we finally inhabit it?

## CHAPTER 12

## Three Eschatological Destinies

The lemniscate framework has illuminated how we exist within temporal succession—exiled from eternal participation through the Fall, granted renewed access through Christ's opening of the crossing point, trained through liturgy and prayer to dwell at the threshold. But what happens at the end? When physical death concludes our temporal journey, what final states await?

Christian theology speaks of three possible destinies: heaven, purgatory, and hell. These are not three locations in space but three modes of finally relating to the eternal dimension that grounds all temporal existence. The crossing point—opened by Christ, accessible through grace- becomes the focal point for understanding ultimate destiny.

This chapter explores how the lemniscate framework might illuminate these final states, not as places we go but as ways we finally inhabit (or refuse) the relationship with God that our temporal journey prepared us for.

### Heaven: Full Participation in Eternal Present

Heaven is not escape from existence but its fulfillment. The beatific vision—seeing God "face to face" (1 Corinthians 13:12)—is not leaving reality behind but encountering Reality itself without the veils that obscured it during temporal succession.

The lemniscate model pictures heaven as full, abiding in eternal relation. What we tasted momentarily in prayer, what we accessed partially through sacraments, what we trained for through liturgical return, all this becomes constant, uninterrupted, complete.

Augustine's famous prayer captures this: "You have made us for yourself, O Lord, and our heart is restless until it rests in you." Heaven is that rest, not cessation of activity but end of restlessness. The rushing between past and future stops. The anxiety of temporal dispersion ceases. We inhabit in the eternal present that always grounded our temporal journey but which we could only access imperfectly while exiled in pure succession.

This doesn't mean we leave time entirely. The resurrection of the body affirms that we remain embodied, particular, ourselves. But our mode of existing within time transforms. We no longer endure succession as exile but inhabit it as participation—temporal existence grounded fully in eternal presence, the way Adam was meant to inhabit the lemniscate before the Fall but now consummated beyond possibility of further loss.

The saints in heaven pray for us, participate in the liturgy, remain connected to the Church on earth. This makes sense if heaven is not spatial distance from temporal existence but dwelling at the crossing point from which all temporal moments remain accessible. They have passed through physical death and now inhabit the eternal dimension that intersects every moment of the temporal curve. They are not "far away" but fully present to the Present that grounds all presents.

Heaven is not reward in the sense of payment earned. It is fulfillment —the realization of what we were always made for, the completion of the trajectory that the crossing point opened, the final healing of the exile that began in Eden.

**Purgatory: Neither Within Nor Yet Beyond**

Catholic theology speaks of purgatory as a state of purification for those who die in God's grace but are not yet ready for the fullness of heavenly communion. Protestant traditions generally reject this doctrine, but the lemniscate framework may offer fresh contemplation of what the Church means.

Here is the crucial insight: purgatory is neither within the lemniscate nor yet in God's eternal present. It is a transitional state—a purifying passage that prepares the soul for full participation in eternity.

Those in purgatory have passed through physical death. They are no longer traversing the temporal curve as we do. But they have not yet entered the full dwelling at the crossing point that characterizes heaven. They exist in an intermediate condition, separated from temporal succession but not yet united to eternal participation.

This is why the suffering of purgatory is described as intense longing. It is not punishment (they are saved, destined for heaven) but purification through desire. Having glimpsed the eternal present, having tasted what they were made for, they cannot yet fully enter it. The restlessness Augustine described—"our heart is restless

until it rests in you"—becomes acute, burning, all-consuming.

Think of it this way: within temporal succession, we can be distracted from our incompleteness. We fill the void with created goods, temporal pursuits, the rush of succession itself.

Stripped of all that once mediated its attention, the soul stands unveiled before God. It stands in immediate relation to God’s eternal presence—experienced either as beatitude for what is conformed to love, or as condemnation for what remains opposed to it.

Within the lemniscate model purgatory is depicted as being on the way into full participation—the soul has left temporal traversal but is being readied for eternal dwelling. Purified by longing itself.

This also illuminates why prayers for the dead matter. We who remain in temporal succession can still access the crossing point through sacraments and prayer. Our prayers participate in the eternal present where past, present, and future meet. Those in purgatory, dependent upon the prayers of the Church, are aided by our participation in the grace that flows from the crossing point Christ opened.

The doctrine isn't about "buying people out of punishment" (the caricature) but recognizing that the communion of saints—temporal and eternal, living and dead—remains connected through shared participation in Christ. Our prayers are not transactions but expressions of that communion, helping those in purification move toward the fullness they desire.

**Hell: Permanent Refusal of the Crossing Point**

Hell is the most difficult doctrine. How can a loving God permit eternal suffering? Why doesn't divine mercy eventually win everyone?

The lemniscate framework doesn't solve this mystery (nothing does) but may offer contemplative vocabulary for holding together truths that seem contradictory: God desires all to be saved (1 Timothy 2:4), yet Scripture speaks of final separation from God (Matthew 25:41).

Hell might be understood as permanent refusal of the crossing point. Not that God closes access (Christ opened it permanently) but that the human will, solidified in rejection, refuses to cross the threshold even when it remains open.

During temporal life, we had countless opportunities to turn toward the crossing point—through prayer, sacrament, moral choices, moments of grace. At death, this capacity for reversal ends. The will becomes fixed in its final orientation. Those who spent their temporal journey fleeing from God, refusing the threshold, avoiding the eternal present that would expose their false selves, at death, this refusal becomes permanent.

Hell is not God punishing from outside but the soul choosing perpetual exile. God doesn't send anyone to hell; people choose it by refusing the only thing that would satisfy them. As C.S. Lewis observed, the gates of hell are locked from the inside.

St. Alphonsus Liguori offered a meditation that captures hell's horror with stark simplicity. He asked the damned to imagine a clock that ticks eternally: "Forever... never. Forever... never. Forever... never."

Forever in torment. Never any relief.

Forever separated from God. Never any reconciliation.

Forever in regret. Never any change.

Forever burning. Never consumed.

Forever existing. Never finding rest.

The clock ticks on. There is succession in hell (whatever mode of duration it involves), but it never leads anywhere. There is no progress, no hope, no crossing point to approach. The soul wanted autonomy from God, wanted to be its own center, wanted to exist without dependence on eternal grounding. It gets exactly what it chose: existence without God, succession without rest, time without fulfillment.

The heart remains restless forever, not because rest was unavailable, but because it was refused.

This is not vindictiveness on God's part. It is the logical consequence of permanent refusal. God's love remains (God cannot stop being Love) but love refused becomes torment. The same divine presence that is heaven's bliss for those who accept it becomes hell's fire for those who reject it. The sun that warms wax also hardens clay, not because the sun changes but because the material receiving it differs.

The crossing point stands open. Heaven's door is never locked. But the soul in hell will not cross the threshold. Its will, fixed in refusal, will not reverse, not because freedom has been destroyed but because freedom has been consummated in permanent choice. This is the tragedy, not that God failed to provide the way but that the way, though open, is rejected eternally.

**The Three Modes Compared**

We can now see the three destinies as three ways of relating to the crossing point Christ opened:

**Heaven:** Full, permanent dwelling at the threshold. The soul rests in God. Temporal existence is experienced from grounding in eternal participation. The restlessness ends. The exile is healed. Perfect communion.

**Purgatory:** On the way into full participation—between temporal succession and eternal dwelling. The soul desires God but is not yet ready. Purification through longing. The restlessness intensifies but is directed toward eventual rest. Temporary suffering leading to permanent joy.

**Hell:** Permanent refusal of the threshold. The soul will not cross. Succession continues but leads nowhere. The restlessness never ends because what would end it (union with God) is perpetually rejected. Eternal exile, freely chosen, never reversible. “Lasciate ogne speranza, voi ch'intrate”

These spatial images—threshold, crossing, dwelling—are contemplative pictures, not literal locations. What they illuminate is the soul's final relationship to God: acceptance, preparation, or refusal.

The crossing point remains constant in all three. What differs is the soul's relationship to it: acceptance (heaven), preparation (purgatory), or refusal (hell).

**Why These Distinctions Matter**

Understanding final destiny as modes of relation to the crossing point rather than locations in space clarifies several points:

**Judgment is not arbitrary.** God doesn't decide capriciously who goes where. Each soul's final state flows from how it oriented itself during temporal life toward or away from the crossing point grace made accessible.

**Hell is freely chosen, not imposed.** God forces no one into eternal separation. Those in hell are there because they will not cross the threshold even when it stands open.

**Purgatory is not "second chance."** Those in purgatory have already chosen God. They are being purified so they can enter fully what they already desire. It's not probation but preparation.

**Heaven is not escapism.** We don't flee temporal existence but fulfill it. Resurrection of the body confirms we remain

ourselves, embodied and particular, but now existing in the mode for which we were always intended.

**Prayer and Sacraments are not superstition.** They genuinely access the crossing point. Through them, we participate in eternal present even while still traversing temporal succession. What we practice now prepares us for what we'll inhabit forever.

**The communion of saints makes sense.** Those in heaven dwell at the threshold from which all temporal moments are accessible. They can pray for us because they participate in the eternal dimension that intersects our present. We can pray for those in purgatory because we access the same dimension through sacramental grace.

**The Urgency of the Present**

One implication stands out: the present moment matters ultimately. Not because we might die soon (though we might) but because each moment shapes how we relate to the crossing point.

Every prayer, every sacrament, every moral choice, every act of charity —these train us in dwelling at the threshold or fleeing from it. We are becoming people who will say yes to eternal participation or people who will refuse it. The pattern we establish now determines what becomes permanent at death.

This isn't anxiety-inducing (though it should inspire seriousness) because the crossing point is always

accessible. At any moment, we can turn toward the threshold. Reconciliation remains available. Grace continues to flow. Until death fixes our final choice, we can always reorient.

But we should not presume. Death comes. The time of decision ends. What was fluid becomes fixed. The choice we've been rehearsing through countless small choices becomes our eternal destiny.

Augustine's restless heart gets either what it ultimately sought (rest in God) or what it ultimately rejected (perpetual restlessness without God). There is no third option, no neutral ground, no perpetual indecision.

The crossing point stands open. The question is: Will we cross?

**Transition: From Ultimate Destiny to Resurrection Reality**

We have contemplated three ways the human person might finally relate to the crossing point: full dwelling (heaven), purifying passage (purgatory), or permanent refusal (hell). But a question remains: What happens to the body?

Christian faith confesses not immortality of the soul alone but resurrection of the body. We don't become disembodied spirits, but embodied persons transformed. The next chapter explores what resurrection means if heaven is participation in eternal present while remaining within created existence.

What kind of body can dwell at the crossing point? How does matter participate in eternity? What does redeemed time look like when the exile is finally healed?

The crossing point opened. The three destinies clarified. Now we contemplate the resurrection body that will inhabit whichever destiny we choose.

## CHAPTER 13

## The Resurrection Body and Redeemed Time

The previous chapter explored three final destinies—three ways the soul might ultimately relate to the crossing point Christ opened. But Christian faith confesses more than immortality of the soul. We believe in "the resurrection of the body" (Apostles' Creed). Not disembodied spirits floating in eternity, but embodied persons transformed.

This raises urgent questions: What kind of body can dwell at the crossing point? How does matter participate in eternal present while remaining material? What does Scripture mean by "spiritual body" (1 Corinthians 15:44)? And how does Christ's own resurrection illuminate what awaits us?

This chapter explores how the lemniscate framework might help us contemplate the resurrection body—not as escape from materiality but as its fulfillment, not as leaving time behind but as inhabiting time rightly.

### The Resurrection Promise: 1 Corinthians 15

Paul's extended meditation on resurrection in 1 Corinthians 15 provides the essential biblical foundation. He insists repeatedly: Christ has been raised, and we will be raised. The resurrection is not optional theology or pious metaphor but the core of Christian hope.

"If there is no resurrection of the dead, then Christ has not been raised; and if Christ has not been raised, then our proclamation has been in vain, and your faith has been in vain" (1 Corinthians 15:13-14). Everything stands or falls with bodily resurrection.

But what kind of body? Paul anticipates the question: "How are the dead raised? With what kind of body do they come?" (1 Corinthians 15:35). His answer uses agricultural metaphor—a seed dies and rises transformed—then provides crucial distinctions:

"What is sown is perishable, what is raised is imperishable. It is sown in dishonor; it is raised in glory. It is sown in weakness; it is raised in power. It is sown a physical body; it is raised a spiritual body" (1 Corinthians 15:42-44).

The contrast is not between material and immaterial (as if resurrection means becoming ghosts) but between different modes of bodily existence: perishable/imperishable, dishonorable/glorious, weak/powerful, physical/spiritual.

The Greek word translated "spiritual" (pneumatikos) doesn't mean "non-physical" but rather "animated by Spirit" or "suited for spiritual life." The resurrection body is still body—material, particular, continuous with what we are now—but transformed, glorified, suited for dwelling in God's presence.

This is the mystery we're trying to contemplate: genuine bodily existence that participates fully in eternal present without ceasing to be bodily.

**Christ's Resurrection as Template**

Jesus himself provides the pattern. His resurrection body demonstrates what "spiritual body" means concretely.

The Gospels insist on continuity: It's the same Jesus. He bears the wounds of crucifixion (John 20:27). He eats fish (Luke 24:42-43). He can be touched (Matthew 28:9). This is not a different person or a ghostly apparition but the same body that suffered and died.

Yet transformation is evident: He appears in locked rooms (John 20:19). He's not immediately recognized (Luke 24:16, John 20:14, John 21:4). He appears and vanishes (Luke 24:31). He is no longer bound by ordinary spatial-temporal constraints.

The lemniscate framework offers a way to contemplate this: Christ's resurrection body remains material (continuous with his crucified body) but now dwells at the crossing point, participating fully in eternal present while remaining embodied and particular.

In Chapter 7, we explored how resurrection might be understood not as entropy reversal within thermodynamic systems but as dimensional transition beyond thermodynamic description. The Second Law still governs temporal processes along the curve. But passage through the crossing point opens access to a mode of bodily existence where thermodynamic constraints, while remaining valid within their domain, no longer exhaust what is possible.

Christ's body demonstrates this. He is recognizably material, eating, speaking, bearing physical marks. But he relates to space and time differently than we do. Not because physical laws have been violated but because his body now dwells at the intersection of temporal succession with eternal presence, operating from both dimensions simultaneously.

This is what "spiritual body" means: not less than material but “more” than merely material body animated by Spirit, participating in the eternal dimension, no longer subject to death and decay, yet genuinely embodied.

**What "Spiritual Body" Means**

The phrase sounds paradoxical to modern ears trained to oppose "spiritual" and "physical." But Paul isn't contrasting immaterial vs. material. He's contrasting two modes of bodily existence:

**Physical body** (*sōma psychikon*): Animated by natural life (*psychē*), subject to death, perishable, operating within temporal succession as we currently experience it.

**Spiritual body** (*sōma pneumatikon*): Animated by Spirit (*pneuma*), imperishable, glorious, operating within temporal succession while grounded in eternal participation.

Both are genuinely bodily. The difference is their mode of relating to the crossing point.

The physical body traverses the temporal curve in exile—subject to entropy and death, anxiously stretched between past and future. Yet even now it is not wholly cut off from eternity, for it participates sacramentally in the grace that flows from Christ's passage.

The spiritual body, raised in resurrection, retains continuity with this embodied life but is no longer subject to corruption or death. Its temporality is no longer exilic but participatory—grounded in eternal communion even as it remains recognizably embodied.

This helps us understand why resurrection is necessary. We are not souls trapped in bodies, awaiting release into pure spirit. We are embodied persons whose bodies are integral to who we are. Redemption doesn't liberate us "from" bodies but redeems "our bodies", transforming them from exiled to grounded mode of existence.

The pattern is consistent across Scripture: creation good, sin introduces disorder, redemption heals rather than replaces. Bodies are good (God created them). Death entered through sin (Genesis 3). Resurrection heals by restoring bodies to the mode of existence they were always meant to have, temporal life grounded in eternal participation.

**Matter Participating in Eternal Present**

How can matter participate in eternity? Doesn't matter belong to time, undergoing change, subject to entropy?

The lemniscate framework invites us to reconsider this assumption. If temporal succession (the curve) is grounded

in eternal present (the crossing point), then matter existing within temporal succession isn't separate from eternity but participates in what grounds it.

Even now, in our perishable bodies, we participate (however imperfectly) in the eternal dimension through sacraments. The Eucharist makes Christ's body present across temporal distance. Baptism grants access to the crossing point. These are not just spiritual realities but bodily ones — water touches flesh, bread is chewed and swallowed, oil anoints skin.

Matter already participates in the eternal dimension sacramentally. Resurrection extends this participation to completion. What happens occasionally now (matter accessing crossing point through sacramental grace) becomes permanent (matter dwelling at crossing point constantly).

This doesn't mean matter becomes timeless. The resurrection body still experiences succession, Christ walks, talks, eats, which all involve temporal sequence. But the body experiences succession from within grounding in eternal participation rather than from separation.

Think of the difference between swimming desperately against a current (exiled traversal of the curve) and being carried by a current while grounded on solid footing (grounded traversal). The movement continues, but the relationship to what grounds the movement transforms everything.

**Continuity With the Present Body**

Paul emphasizes continuity through the seed analogy: "What you sow does not come to life unless it dies. And as for what you sow, you do not sow the body that is to be, but a bare seed... God gives it a body as he has chosen" (1 Corinthians 15:36-38).

The seed and the plant are continuous yet transformed. One becomes the other. The plant doesn't replace the seed but fulfills what was latent within it.

Similarly, the resurrection body doesn't replace our present body but fulfills it. The same matter—"this perishable body must put on imperishability" (15:53)—transformed. Not a different body but this body glorified.

This has profound implications. Your resurrection body will be *your* body, recognizably continuous with the body you inhabit now. The experiences, relationships, joys, sufferings embodied in this flesh will not be erased but transfigured. The wounds Christ bears in resurrection witness to this: even suffering is not undone but transformed, incorporated into eternal glory.

This is why practices like fasting, chastity, care for the body matter. We are training the body that will be raised. The patterns we establish now—disciplines of attention, practices of charity, habits of dwelling at the threshold—shape the body that will eternally inhabit the crossing point.

We are not souls using temporary housing. We are embodied persons whose bodies will be glorified. How we treat our bodies now, how we direct their desires, what practices we train them in, all this matters eternally because *this* body, transformed, is what we will be forever.

**Transformation Without Replacement**

The crucial balance: genuine transformation without loss of identity. The resurrection body is different from the present body (glorified, imperishable, powerful) yet continuous with it (same person, recognizable, bearing the marks of temporal journey).

The lemniscate framework pictures this as changing one's relationship to the curve without leaving it. We traverse the same temporal structure —experiencing succession, inhabiting space, relating to creation—but from a transformed position: grounded in eternal participation rather than exiled in pure succession.

This is why "spiritual body" is such a perfect phrase. It's not less bodily (spiritual *instead of* physical) but more fully bodily (physical *animated by* Spirit). Matter achieving its intended mode of existence. Body fulfilling what it was always meant to be.

And this transformation extends beyond individual bodies. Paul speaks of all creation groaning, waiting for redemption (Romans 8:19-22). If the lemniscate represents the structure of temporal existence, resurrection doesn't evacuate that structure but transforms how creation relates to it.

"New heavens and new earth" (Revelation 21:1) doesn't mean destruction and replacement but renewal and transformation. The same creation—"I make all things new," not "I make new things"—existing in the mode it was always intended for: temporal succession grounded in eternal participation.

**Redeemed Time vs. Escaped Time**

A crucial distinction emerges: Christian hope is not escape from time but redemption of time.

Certain Platonic and Gnostic traditions often treat temporal existence as prison from which we need liberation. Time is the problem; eternity is the solution. Salvation means leaving behind the temporal realm for timeless existence.

Christianity radically rejects this. Time is God's good creation. Temporal succession is how creatures exist. The Incarnation affirms this —God *entered* time, rather than rescuing us *from* it. Resurrection transforms how we inhabit time, not whether we inhabit it.

The lemniscate framework illuminates this. The curve remains— temporal succession endures, though no longer subject to decay. What changes is our relationship to the crossing point. From exile to participation. From anxious rush to grounded dwelling. From perishable traversal to imperishable inhabitation.

Redeemed time is still time. Glorified bodies still experience succession, still relate spatially to creation, still undergo the kind of change that temporal existence involves. But all this happens from within participation in the eternal present that grounds temporal succession — the crossing point opened by Christ, now permanently accessible, the eternal ground of resurrected communion.

This is why the final vision in Revelation includes trees, rivers, cities, nations bringing their glory into the New Jerusalem (Revelation 21:24-27, 22:1-2). Not timeless abstraction but renewed creation where temporal processes—growth, relationship, development—occur within the grounding of eternal participation.

We don't hope to escape the lemniscate but to traverse it rightly. Not to leave time but to inhabit time as it was always meant to be inhabited. Not to become timeless but to experience temporality from within the eternal dimension that sustains it.

**The Mystery Remains**

As with all previous chapters, a necessary reminder: this framework doesn't explain resurrection. The mystery remains profound. How exactly matter participates in eternity, how identity persists through such radical transformation, how the same body can be both continuous and glorified—these exceed our full comprehension.

What the lemniscate offers is contemplative vocabulary for approaching the mystery without solving it. A way to picture how bodily resurrection might be coherent without reducing it to mechanics. A framework that honors both

continuity (it's your body) and transformation (it's glorified) without explaining away either.

Paul himself appeals to mystery: "Listen, I will tell you a mystery! We will not all die, but we will all be changed, in a moment, in the twinkling of an eye" (1 Corinthians 15:51-52). Changed how? By what mechanism? Paul doesn't say. He insists on the fact without explaining the process.

The lemniscate follows Paul's lead. Resurrection is real. Bodies are transformed. Matter participates in eternity. How this occurs remains mystery. But the framework may help us think about resurrection in ways that preserve its bodily reality while honoring its transcendent character.

**Transition: From Contemplation to Objection**

We have explored the lemniscate framework across thirteen chapters—from its geometric structure through Fall and redemption, from sacramental practice through liturgical rhythm, from prayer and prophecy through final destinies and resurrection hope.

But questions remain. Objections arise. Philosophical puzzles need addressing. Theological concerns require response. Scientific tensions demand engagement.

The next section (Part IV) turns to objections. Not to defend the framework against all criticism—it's a heuristic tool, not a dogma requiring protection—but to clarify what it claims, acknowledge what it doesn't explain, and respond

to legitimate concerns from philosophy, theology, and science.

The framework stands or falls not by how well it resists criticism but by how fruitfully it illuminates the mysteries we confess. If it helps contemplation, deepens understanding, connects disparate truth—it serves its purpose. If it creates more confusion than clarity, it should be set aside.

Now we test it against objections to see where it illuminates and where it obscures.

# PART IV: OBJECTIONS

## CHAPTER 14

### Objections from Philosophy

We have explored the lemniscate framework across thirteen chapters, applying it to Fall and redemption, sacraments and prayer, eschatology and resurrection. But serious questions remain. Does the model cohere philosophically? Does it assume contested positions in philosophy of time? Does spatial metaphor distort what it tries to illuminate?

This chapter engages objections from philosophy—not to defend the framework against all criticism but to clarify what it claims, acknowledge its limitations, and respond to legitimate concerns. If the framework cannot withstand philosophical scrutiny, it should be modified or abandoned. If it survives examination, we better understand both its strengths and its proper boundaries.

### Objection 1: What Is Time's Ontological Status?

The Nicaraguan poet Alfonso Cortés captured time's enigmatic character in a haunting line:

*"Time, where are we, you and I, I who live in you, and you that do not exist?"*

The question cuts to philosophy's perennial puzzle: Is time real? If so, what kind of reality does it have? We

experience ourselves as living *in* time ("I who live in you"), yet time itself seems to lack substantial existence ("you that do not exist"). Time is not a thing we can point to, not a substance with independent being, not an object alongside other objects.

**The objection:** The lemniscate framework treats time as if it has geometric structure—a curve, a shape, a definite form. But doesn't this reify time? Doesn't it turn a problematic concept into a pseudo-object, giving it properties (curvature, crossing points) that presume time is more substantial than it is?

**Response:** The framework does not claim time is a thing with independent existence. The lemniscate is a heuristic image for contemplating the *structure of temporal succession*—the pattern of how moments relate to one another, how past connects to future, how we experience before-and-after.

When we say "time has a structure," we mean something like: "There is an intelligible pattern to how temporal becoming unfolds." Just as grammar has structure (rules governing how words relate) without grammar being a thing, and logic has structure (patterns of valid inference) without logic being an object, temporal succession can have structure without time being substantial.

The lemniscate illustrates that structure. It doesn't claim to capture time's essence (if it has one) or solve metaphysical debates about time's ontological status. It offers a contemplative image for how temporal succession *behaves*, how moments follow one another, how patterns recur, how past and future relate.

Cortés is right: we live in time, yet time's own being remains elusive. The lemniscate accepts this. It's a map of how we traverse temporal existence, not a metaphysical thesis about what time ultimately is.

**Objection 2: Doesn't Spatial Metaphor Distort Temporal Reality?**

Time and space differ fundamentally. Space allows simultaneous presence (multiple objects coexist), reversible direction (you can walk forward then backward), and neutral orientation (north isn't privileged over south). Time involves irreversible sequence (present becomes past, future becomes present), asymmetric directedness (past → future, not vice versa), and unique nowness (only one moment is present).

**The objection:** By using a geometric curve to represent time, doesn't the lemniscate smuggle spatial properties into temporal analysis? When we picture time as a loop or curve, we spatialize what is fundamentally non-spatial. This risks distorting temporal reality to fit geometric intuitions.

**Response:** This is a serious concern, and the framework must acknowledge it honestly. Spatial metaphors always risk distortion when applied to time. No geometric picture perfectly captures temporal experience.

However, several points defend the framework's use of spatial imagery:

**First**, all language about time employs spatial metaphor. We speak of "long" and "short" durations, "before" and "after" (originally spatial terms), "past stretching behind us" and "future lying ahead." Even the most rigorous philosophical accounts use spatial vocabulary because human cognition naturally maps abstract structures onto spatial intuitions.

**Second**, the lemniscate doesn't claim to represent time *as* space. It uses spatial form to picture *relationships* between temporal moments. The curve's shape suggests how past, present, and future might relate structurally—how distant moments curve back toward nearness, how patterns recur, how beginning and end approach each other.

**Third**, the framework explicitly denies that time is literally a geometric object. Chapter 2 stated clearly: the lemniscate is not univocal description but analogical picture, heuristic tool not metaphysical blueprint. It illuminates without claiming identity between geometric form and temporal reality.

**Fourth**, temporal succession genuinely has structure that geometric imagery can help us contemplate. Music unfolds temporally but has structure we can notate spatially (musical scores). Speech flows temporally but has grammatical structure we can diagram. The lemniscate similarly uses spatial form to think about temporal pattern without claiming temporal experience *is* spatial.

The objection stands as permanent warning: don't mistake the map for territory, the image for reality, the heuristic for explanation. But spatial metaphor, carefully deployed, can illuminate temporal structure without reducing time to space.

**Objection 3: Does Structure Imply Determinism?**

If temporal succession has a definite structure—a curve with specific shape—doesn't this imply the future is already determined? If the lemniscate exists as a complete form, and we merely traverse it, haven't we eliminated genuine freedom and openness to novelty?

**The objection:** Structure seems to require fixity. If the curve is determinate, every point along it is already set. Our experience of freedom and choice becomes illusory—we think we're making decisions, but we're really just moving along predetermined paths.

**Response:** This confuses structure with content. The lemniscate represents the *form* of temporal succession, not the *content* of events that occur within it. Think of grammatical structure: English has specific rules (subject-verb-object word order, verb conjugation patterns, etc.), but this doesn't determine what sentences people will speak. The structure constrains how language works without determining what gets said.

Similarly, the lemniscate represents how temporal moments relate structurally—how past connects to future, how patterns recur, how temporal succession operates—without specifying which events occur at which moments. The curve's shape says nothing about whether you'll have coffee or tea tomorrow, whether empires will rise or fall, whether specific prayers will be answered.

Moreover, the framework grounds freedom rather than eliminating it. If the future doesn't yet exist (presentism), and if temporal succession involves genuine becoming (not eternal stasis), then freedom operates *within*

the structural possibilities the lemniscate pictures. The curve describes the *how* of temporal succession; free agents determine the *what* of temporal content.

God's eternal knowledge of the whole curve doesn't determine what happens any more than an author's knowledge of a story's plot eliminates characters' agency *within the narrative*—one traditional way Christians have understood this compatibility. From eternity, God sees all moments simultaneously—including the free choices made within temporal succession. Divine foreknowledge and creaturely freedom can be held together because they operate from different perspectives (eternal vs. temporal).

The lemniscate is compatible with libertarian free will, compatibilist freedom, and even certain forms of determinism, depending on how one fills in the metaphysical details. It's a structural framework, not a solution to the free will debate.

**Objection 4: What Grounds the Lemniscate Itself?**

If temporal succession exists within the lemniscate structure, what grounds that structure? Doesn't this just push the question back one level?

**The objection:** Classical theology teaches that God creates time along with creation—time has no existence independent of God's creative act. But if we picture time as having definite structure (lemniscate), doesn't this give time independent reality? And if God creates the lemniscate, why this shape rather than another? The framework seems to multiply mysteries rather than resolve them.

**Response:** The framework explicitly affirms that God creates temporal succession. The lemniscate doesn't exist independently of divine creative action any more than space, matter, or natural laws do. It's a feature of creation, not a constraint on God.

Why this structure rather than another? The same question applies to all aspects of creation: Why three spatial dimensions rather than four or two? Why these natural constants rather than others? Why this universe rather than infinite alternatives? These are profound questions, but they don't uniquely challenge the lemniscate framework. Any account of creation faces them.

The framework proposes that God creates temporal succession with a specific structure—one that allows for pattern, recurrence, connection between past and future, and the kind of temporal existence suited for creatures who will be invited into participation in eternal present. The lemniscate pictures that structure.

Could God have created differently? Classical theology affirms divine freedom in creation. God chose to create this way but wasn't constrained to do so. The lemniscate represents how *this* creation's temporal succession operates, not universal necessity binding God.

The framework doesn't ground itself—it's grounded in God's creative will, just like everything else that exists.

**Objection 5: Which Philosophy of Time Does This Assume?**

Philosophers debate fundamental questions about time's nature: Does only the present exist (presentism), or do past and future exist equally with the present (eternalism)? Does time flow objectively (A-theory), or is temporal language merely indexical (B-theory)? These debates are unresolved, and different positions have sophisticated defenders.

**The objection:** The lemniscate framework seems to assume certain contested philosophical positions. It talks about past and future as if they have some kind of reality, which sounds like eternalism. It emphasizes crossing points and structural relationships, which seems to favor B-theory. But if the framework depends on contested philosophical assumptions, it's only as secure as those assumptions.

**Response:** The framework aims to remain neutral on most philosophy-of-time debates. It can be interpreted through different philosophical lenses:

**Presentist reading:** Only the present moment exists, but the lemniscate represents the *structure* of how present moments succeed one another. Past moments existed (but no longer do), future moments will exist (but don't yet), and present moments have a structural relationship that the curve pictures. The lemniscate maps temporal succession without requiring past/future existence.

**Eternalist reading:** All moments exist equally (from God's eternal perspective or in four-dimensional spacetime), and the lemniscate represents how they're structured relative to one another. The curve shows which moments are near/far, how they connect, why certain patterns recur.

**Growing block reading:** The past and present exist, the future doesn't yet, and the lemniscate represents how the growing edge of reality unfolds, not predetermined but following a structural pattern.

**A-theory reading:** Time genuinely flows, the present moves, and the lemniscate captures the *pattern* of that flow—how moments succeed one another, how the moving present traverses temporal structure.

**B-theory reading:** Temporal language is indexical (like "here" and "there"), and the lemniscate represents objective temporal relations independent of any privileged "now."

The framework is deliberately underdetermined philosophically. It offers a contemplative picture that can be filled in with different metaphysical details depending on one's position in these debates. This is feature, not bug, the lemniscate aims to illuminate mysteries Christians confess without settling disputed philosophical questions.

**What the Framework Claims and Doesn't Claim**

Clarity requires stating explicitly what the lemniscate framework does and doesn't assert:

**The framework DOES claim:**

- Temporal succession has intelligible structure worth contemplating

- That structure can be pictured geometrically (with appropriate caveats)

- Christian doctrines (Fall, Incarnation, Resurrection) can be illuminated by contemplating this structure

- Spatial metaphors, carefully used, help think about temporal relationships

- Past and future can be fruitfully contemplated as relating structurally, not just through present mediation

- The structure resonates with practices (liturgy, prayer, sacraments) that already existed

**The framework DOES NOT claim:**

- Time is literally a geometric object

- The lemniscate captures time's essence exhaustively

- Specific philosophical debates are settled by the geometric picture

- Spatial metaphor is adequate to temporal reality

- The image solves rather than illuminates mysteries

- This is the only valid way to contemplate temporal structure

- Competing models are false or inferior

The framework is a *heuristic*, a thinking tool, not a metaphysical doctrine. It stands or falls by whether it illuminates truths we already confess, helps connect disparate insights, and deepens contemplation. If it does, it serves its purpose. If it confuses more than clarifies, other approaches should be tried.

**The Limits of Philosophical Defense**

Philosophy rightly presses questions that theology sometimes leaves implicit. It demands precision, coherence, engagement with alternatives. The lemniscate framework benefits from this scrutiny—objections reveal weak points, force clarifications, show where humility is needed.

But the framework doesn't ultimately stand or fall on philosophical grounds alone. It's offered as a contemplative tool within Christian faith, aimed at illuminating revealed mysteries. Philosophy can show whether it's internally coherent, whether it's compatible with various metaphysical positions, whether it commits obvious errors. But philosophy can't determine whether it's spiritually fruitful, whether it deepens prayer, whether it helps Christians understand Scripture and tradition better.

The next chapter turns to theological objections—questions from within Christian tradition about whether the framework coheres with doctrine, honors Scripture, respects the Church's teaching. These are distinct from philosophical objections and require different kinds of response.

## CHAPTER 15

## Objections from Theology

The previous chapter engaged philosophical objections—questions about coherence, metaphysical assumptions, and conceptual clarity. But for a framework offered in service of Christian contemplation, theological objections matter more. Does the lemniscate honor Scripture's teaching? Does it cohere with tradition? Does it respect the Church's magisterial authority? Does it preserve mystery or reduce it to mechanics?

These questions arise from within Christian faith and demand answers grounded in faith. Philosophy asks whether the framework is coherent; theology asks whether it is faithful. This chapter addresses theological concerns directly, acknowledging where the framework serves Christian understanding and where it must bow before revealed truth.

### Objection 1: Does the Framework Go Beyond Scripture?

Scripture reveals essential truths about time: God created it (Genesis 1:1), entered it (John 1:14), will consummate it (Revelation 21-22). Scripture speaks of time's beginning, Christ's redemption occurring "in the fullness of time" (Galatians 4:4), and the promise of new heavens and new earth. But Scripture doesn't provide geometric models of temporal structure.

**The objection:** By proposing the lemniscate as time's structure, doesn't the framework go beyond what Scripture reveals? Does it add human speculation to divine revelation? Should we be content with what Scripture teaches without inventing models it doesn't authorize?

**Response:** The framework explicitly distinguishes revelation from speculation. Scripture reveals the *theological* truths about time—that God creates it, Christ redeems it, the Spirit sanctifies it. The lemniscate offers a *contemplative picture* for thinking about these revealed truths without claiming scriptural authority for the geometric form itself.

Think of how Church Fathers used philosophical concepts (substance, person, nature) to articulate Trinitarian and Christological doctrines. These terms don't appear in Scripture, yet they help the Church think carefully about what Scripture reveals. They're tools for contemplation, not additions to revelation.

Similarly, the lemniscate is a tool. It doesn't claim to be revealed truth but attempts to picture how revealed truths might cohere—how Fall and redemption relate temporally, how sacraments access Christ's once-for-all work, how liturgy trains us in patterns of return. Scripture remains the authority; the model serves Scripture's teaching.

Moreover, the framework repeatedly returns to Scripture: 1 Corinthians 15 on resurrection, John's Gospel on Incarnation, Augustine's *Confessions* on time's nature, Revelation on new creation. It aims to illuminate biblical teaching, not supplement it.

**Objection 2: Does This Conflict With Tradition?**

The Church has contemplated time's nature for two millennia. Patristic writers, medieval scholastics, and modern theologians have developed rich accounts without needing geometric models. Does the lemniscate framework contradict or undermine this tradition?

**The objection:** Church Fathers spoke of time's creation, Christ's lordship over history, eschatological consummation, but they didn't describe time as a lemniscate. If this model were necessary or true, wouldn't the tradition have discovered it? Doesn't proposing something new risk contradicting settled wisdom?

**Response:** The framework doesn't contradict tradition but seeks to contemplate traditional teachings using contemporary imagery. Just as Aquinas employed Aristotelian philosophy to articulate truths the Fathers knew but expressed differently, and just as modern theology uses phenomenology and personalism to deepen traditional insights, the lemniscate uses geometric imagery to contemplate mysteries the Church has always confessed.

Consider what the framework affirms that tradition teaches:

- God's eternity transcends temporal succession (Boethius, Aquinas)
- Time is created good but disordered by sin (Augustine)
- Christ's Incarnation is eternity entering time (Athanasius, Cyril)
- Sacraments make Christ present across temporal distance (Council of Trent)

- Liturgy participates in eternal worship (Eastern and Western tradition)

- Resurrection transforms bodies without replacing them (1 Corinthians 15)

None of these doctrines requires the lemniscate to be true. But the lemniscate offers one way to picture how they cohere—a contemplative image that serves tradition without claiming to improve upon it.

One legitimate question is whether it helps illuminate truths the tradition has taught. If it helps contemporary believers understand what the Church has always confessed, it serves tradition faithfully.

**Objection 3: Does It Respect Magisterial Authority?**

The Catholic Church, and Christian tradition more broadly, recognizes teaching authority—councils, creeds, magisterium. When the Church definitively teaches something about time, creation, or redemption, that teaching binds Christian reflection.

**The objection:** Does the lemniscate framework propose anything that conflicts with magisterial teaching? Does it claim authority the Church hasn't granted? Does it risk leading the faithful into error by presenting speculation as doctrine?

**Response:** The framework explicitly subordinates itself to magisterial authority. It proposes nothing contrary to

defined doctrine and claims no teaching authority of its own. It's offered as theologoumenon—theological opinion open to correction, not dogma requiring assent.

Where the Church has spoken definitively—creation ex nihilo, the Incarnation, bodily resurrection, sacramental efficacy—the framework accepts these teachings and attempts to contemplate them more deeply. It doesn't challenge, revise, or supplement magisterial doctrine but seeks to understand it better.

The framework appears compatible with what the Catechism teaches: that God created time (CCC 338), that Christ's sacrifice is once-for-all yet sacramentally present (CCC 1085, 1367), that bodies will be raised (CCC 988-1004. The lemniscate proposes only that geometric imagery *may* help us contemplate these revealed truths.

If the magisterium were to declare the framework incompatible with Catholic faith, it should be abandoned immediately. It's offered in submission to the Church's teaching authority, not in competition with it.

**Objection 4: Does It Reduce Mystery to Mechanics?**

Christian faith confesses profound mysteries: Trinity, Incarnation, Eucharist, Resurrection. These exceed human comprehension. We believe them on divine authority, not because we can fully grasp them.

**The objection:** By offering geometric pictures of how time works, how Christ intersects history, how sacraments function across temporal distance, doesn't the framework

risk domesticating mystery? Doesn't it suggest we can understand mechanically what should be approached only with humble wonder?

**Response:** This is perhaps the most serious theological objection, and the framework must address it carefully.

Every chapter has included explicit statements that the model doesn't *explain* mysteries but offers *contemplative vocabulary* for approaching them. From the Preface onward, the work has insisted: this is heuristic, not blueprint; illumination, not explanation; analogical picture, not univocal description.

Mystery remains. How Christ is both God and man—the lemniscate doesn't explain it, though it may picture how divine and human natures relate to temporal structure differently. How bread becomes Christ's body—the framework doesn't solve this, though it may help us contemplate Eucharistic presence across time. How bodies resurrect—the model doesn't provide mechanisms, though it may illuminate why resurrection isn't thermodynamically incoherent.

The proper analogy is contemplative art. An icon of the Trinity doesn't explain how three persons are one God, yet it helps us pray. A crucifix doesn't solve the atonement, yet it focuses our worship. The lemniscate similarly aims to serve contemplation without claiming to exhaust mystery.

If the framework ever suggests that mysteries are solved, that explanations replace faith, that comprehension eliminates wonder—it has failed its purpose and should be rejected. It succeeds only if it deepens awe, enriches prayer, and leads to greater humility before what exceeds all images.

**Objection 5: Is This Pastorally Prudent?**

Even if the framework is theologically permissible and philosophically coherent, a question remains: Does it help the faithful? Or does it confuse, distract, or mislead?

**The objection:** Most Christians pray, receive Sacraments, and live faithfully without geometric models of time. Why introduce complexity that might confuse rather than clarify? Isn't simplicity better than speculation for pastoral care?

**Response:** This objection deserves serious consideration. Not every theological reflection serves pastoral needs. Some ideas, though not heretical, are better suited for academic discussion than parish formation.

The framework's pastoral value depends on audience and context. For some —those who wonder how prayers reach saints who died centuries ago, how liturgy participates in eternal worship, why the same readings recur yearly—the lemniscate might illuminate truths they already live. For others, those content with simple faith, untroubled by such questions —the model adds nothing necessary.

The work is offered as *open-access theological contemplation*, available to those interested but not required for faithful Christian life. It's not catechetical material for children, not apologetics for skeptics, not required doctrine for the baptized. It's one way of thinking more deeply about mysteries already confessed.

Pastoral prudence suggests:

- Don't present this as definitive teaching
- Don't imply it's necessary for salvation
- Don't use it where simpler approaches suffice
- Do offer it to those wrestling with temporal paradoxes in faith
- Do acknowledge it's speculative and subject to correction
- Do emphasize it serves existing practices, not replaces them

If it helps some pray better, understand Scripture more deeply, or approach Sacraments with greater awe—it serves pastoral good. If it confuses or distracts, it should be set aside in favor of approaches that serve more effectively.

**Objection 6: Does It Honor Christ's Centrality?**

Christianity is radically Christocentric. "No one comes to the Father except through me" (John 14:6). Christ is "the way, the truth, and the life." Any theological framework must honor this centrality absolutely.

**The objection:** By focusing on geometric structure—lemniscates, crossing points, curves—doesn't the framework risk displacing Christ from the center? Doesn't it make Him one element within a system rather than the Lord who transcends all systems?

**Response:** The framework is only valid insofar as it illuminates Christ's centrality, not obscures it. Chapter 6 explicitly presented Christ as the orthogonal intersection—not one point among others on the curve but the unique crossing where eternity pierces time. The entire structure depends on His Incarnation, death, and resurrection opening the way that was closed.

Without Christ:

- The crossing point remains closed (Chapter 5)
- Sacraments would be mere symbols (Chapter 8)
- Prayer across temporal distance makes no sense (Chapter 11)
- Eschatological hope collapses (Chapter 12)
- Resurrection is impossible (Chapter 13)

Christ isn't positioned within the framework; the framework exists to contemplate what He accomplished. He's not explained by the lemniscate; the lemniscate is one attempt to picture His cosmic significance.

If the model ever suggests otherwise—if geometry seems to explain Christ rather than Christ explaining why geometry might serve contemplation—the framework has inverted proper order and must be corrected or rejected.

"In him all things hold together" (Colossians 1:17), including temporal structure, if it has any. The lemniscate bows before Christ, or it serves nothing.

**What the Framework Serves**

Clarity requires stating what role the framework appropriately fills:

**The framework serves:**

- Deeper contemplation of revealed mysteries
- Integration of doctrines (Fall, redemption, sacraments, resurrection)
- Pastoral explanation for those asking temporal questions
- Intellectual enrichment for those so inclined
- Bridge between theology and contemporary thought

**The framework does NOT serve:**

- As replacement for Scripture or tradition
- As required doctrine or necessary belief
- As explanation eliminating mystery
- As apologetic proving faith's truth
- As basis for spiritual life (prayer and sacraments provide that)

It's an aid to understanding, not a foundation. A tool for contemplation, not an object of faith. A heuristic picture, not revealed dogma.

The Church existed two thousand years without it and could continue indefinitely without loss. But for those it helps—those wrestling with how time and eternity relate, how Christ's work remains present, how eschatological hope transforms temporal existence—it may serve faithfully.

**Transition: From Theology to Science**

We've addressed theological objections: Scripture, tradition, magisterium, mystery, pastoral prudence, Christological centrality. The framework must remain accountable to theological scrutiny because it's offered in service of Christian faith. If it fails theologically, it should be reconsidered or set aside.

But one category of objections remains: scientific concerns. Does the framework conflict with physics, contradict cosmology, or misunderstand temporal processes that science describes? The next chapter engages these questions, not to prove the framework scientifically but to show it doesn't require rejecting scientific knowledge.

From faith to reason, from theology to science, from revelation to investigation, the framework must show compatibility across domains while maintaining proper boundaries between them.

## CHAPTER 16

## Objections from Science

Philosophy tests coherence. Theology tests faithfulness. Science tests empirical adequacy. The lemniscate framework isn't offered as scientific hypothesis—it makes no predictions about physical measurements, proposes no experiments, claims no empirical verification. But it must not contradict established scientific knowledge. If physics demonstrates the framework impossible, it should be abandoned regardless of philosophical coherence or theological fruitfulness.

This chapter addresses scientific objections briefly. Not because they're unimportant but because the framework operates primarily in theological and philosophical domains. It doesn't compete with physics but must remain compatible with it.

### Objection 1: Doesn't This Conflict With Relativity?

Einstein's theory of relativity revolutionized our understanding of time. Time isn't absolute but relative to reference frames. Different observers measure different temporal intervals depending on velocity and gravitational field. Space and time form a unified spacetime manifold. The past, present, and future don't have absolute existence independent of observers.

**The objection:** The lemniscate framework seems to assume absolute time—a definite temporal structure independent of observers. But relativity teaches that temporal structure

depends on reference frame. Doesn't this make the framework scientifically obsolete?

**Response:** The framework doesn't require absolute Newtonian time. It can be understood as describing the structure of temporal succession *as experienced by creatures*, not as claiming God's-eye view of absolute simultaneity.

Relativity describes how temporal intervals and simultaneity vary across reference frames within physical spacetime. The lemniscate contemplates how temporal succession relates to eternal present transcending all reference frames. These operate at different levels.

Think of it this way: Relativity describes the geometry of spacetime within creation. The lemniscate contemplates how created temporal succession relates to uncreated eternal presence. One is physics; the other is metaphysics and theology. They can coexist if we maintain proper boundaries.

Moreover, the framework doesn't depend on simultaneity holding absolutely. Even if "now" differs across reference frames, the pattern of temporal succession—that moments follow one another, that creatures experience before-and-after, that past becomes present becomes future—remains. The lemniscate pictures that pattern's structure, not the metric of spacetime intervals.

Relativity and the lemniscate address different questions. Physics asks: How do temporal intervals and causal relations work within spacetime? Theology asks: How does created temporal succession relate to eternal Creator? Both answers can be true in their domains.

**Objection 2: What About Cosmology and Entropy?**

Chapter 7 discussed thermodynamics and resurrection. But broader cosmological questions remain. The universe began (Big Bang), evolves directionally (cosmic expansion), and tends toward heat death (entropy increase). Time has an arrow, past differs from future objectively, not just subjectively. These are established scientific facts.

**The objection:** Does the lemniscate framework conflict with cosmological time's arrow? If temporal succession loops back, doesn't this contradict irreversible cosmic evolution? And if the framework proposes resurrection reverses entropy, doesn't this violate thermodynamic laws?

**Response:** The framework accepts cosmology's findings. The universe did begin approximately 13.8 billion years ago. Entropy does increase. Time does have objective directionality. None of this contradicts the lemniscate picture.

The framework isn't proposing cosmic cycles (eternal return) or time literally looping back on itself. The lemniscate shape represents structural relationships between temporal phases—how Fall relates to redemption, how past relates to future through recurrence and return— not literal circular motion through time.

Regarding thermodynamics, Chapter 7 carefully distinguished:

- Physical laws remain valid within their domain

- Resurrection isn't entropy reversal *within* thermodynamic systems

- It's dimensional transition *beyond* what thermodynamics describes

- Like a plane intersecting a line, not violating line's internal logic but transcending it

The framework proposes that reality includes dimensions beyond what physical cosmology measures. Not contradicting physics but suggesting physics doesn't exhaust ontology. Science describes created order's behavior. Theology contemplates how created order relates to uncreated Ground.

These remain compatible if we don't claim theology overrules physics or physics eliminates theology.

**Objection 3: Doesn't Neuroscience Explain Temporal Experience?**

Neuroscience increasingly understands how brains generate temporal experience—neural oscillations, memory formation, anticipatory processing. Subjective time correlates with brain states. Temporal illusions can be induced by stimulating specific brain regions.

**The objection:** If neuroscience explains temporal experience as brain function, what need for theological frameworks? Isn't the lemniscate just elaborate speculation about what neuroscience will eventually explain mechanistically?

**Response:** Neuroscience describes the neural correlates of temporal experience—how brains represent succession, encode memory, anticipate future. This is valuable knowledge. But it doesn't answer (or claim to answer) metaphysical questions about time's ultimate nature or theological questions about how created temporal succession relates to eternal Creator.

There's no conflict between:

- Brain states correlating with temporal experience (neuroscience)
- Temporal succession having metaphysical structure (philosophy)
- Created time relating to eternal present (theology)

These are complementary, not competing. Neuroscience explains *how* temporal experience works physiologically. Philosophy contemplates *what* temporal succession is ontologically. Theology asks *why* creatures exist temporally and how this relates to God's eternity.

The lemniscate operates in philosophical-theological space, not neuroscientific. It offers no predictions about brain function, claims no neural mechanisms, proposes no alternative to scientific accounts. It simply addresses different questions.

**Objection 4: Can This Framework Be Tested?**

Science progresses through testability. Hypotheses make predictions. Experiments confirm or falsify. If the lemniscate framework makes no empirical predictions, isn't it meaningless by scientific standards?

**The objection:** Karl Popper taught that unfalsifiable claims aren't scientific. If the framework can't be empirically tested, it's at best metaphysical speculation, at worst meaningless. Why take seriously what can't be verified or disproven?

**Response:** The objection assumes all meaningful claims must be empirically testable. But this criterion (logical positivism's verification principle) is self-refuting—it can't itself be empirically verified. Many meaningful claims aren't scientifically testable: mathematical truths, logical principles, moral values, aesthetic judgments, metaphysical insights.

The framework doesn't claim scientific status. It's theological-philosophical contemplation, not empirical hypothesis. It succeeds or fails by different criteria:

- **Philosophical:** Is it coherent? Does it avoid contradiction?
- **Theological:** Does it illuminate revealed truths? Does it deepen faith?
- **Pastoral:** Does it help people pray? Does it clarify doctrine?

These questions matter even if empirical testing doesn't apply. As Einstein observed, 'Not everything that counts can be counted, and not everything that can be counted counts.' Love, meaning, beauty, truth —these aren't scientifically testable, but no one (except the most reductive materialists) denies their reality.

The framework offers contemplative picture, not scientific theory. It stands or falls by whether it helps Christians think about mysteries they confess, not by whether it predicts experimental outcomes.

**Domain Boundaries**

The key to peaceful coexistence between science and theology is respecting proper boundaries. Science investigates natural world through empirical method. Theology contemplates revealed truth through faith seeking understanding. These need not conflict if each stays within its domain.

**Science legitimately tells us:**

- How physical processes work
- What temporal intervals measure
- How brains generate experience
- What evidence supports about cosmic history

**Science cannot tell us:**

- Whether physical reality exhausts what exists
- What ultimate meaning or purpose is
- How creatures relate to Creator
- Whether redemption transcends natural processes

**Theology legitimately tells us:**

- God creates and sustains all
- Christ redeems temporal existence
- Resurrection transforms bodies
- Eternity grounds temporal succession

**Theology cannot tell us:**

- Detailed physical mechanisms
- Empirical predictions about measurements
- Alternative physics contradicting evidence

The lemniscate framework operates in theology's domain, informed by philosophy, respecting science's findings. It doesn't claim to be science, doesn't contradict science, but does propose that reality includes dimensions science doesn't (and can't) measure.

This isn't "God of the gaps" (using theological explanation where science hasn't yet explained). It's recognizing distinct domains: physics describes how creation works; theology contemplates what creation is for and how it relates to Creator. Both can be true simultaneously.

**Transition: From Objections to Integration**

We've engaged objections from three domains: philosophy (coherence), theology (faithfulness), science (empirical compatibility). The framework can responsibly address all three, though it remains tentative, speculative, open to correction.

But objection-answering isn't the framework's purpose. It was offered to illuminate mysteries, deepen contemplation, connect doctrines, and serve prayer. Has it succeeded? Does it help Christians understand what they already confess? Does it enrich spiritual life?

The final chapter steps back from defense to ask: What does this contemplation ultimately serve? Where does it lead? And how might the Holy Rosary—one of the Church’s most widespread devotional prayers—demonstrate what all this speculation has been reaching toward?

From objections to integration. From defense to devotion. From speculation to prayer.

It's time to close the loop and return to where contemplation leads: not to more theory but to beads counted, mysteries pondered, and the crucifix held close.

## CONCLUSION

### The Holy Rosary's Secret: Through Mary to the Crossing Point

We have traveled far—from geometric contemplation through Fall and Redemption, from sacramental theology through liturgical practice, from philosophical objections through theological scrutiny. Sixteen chapters of speculation, analysis, and careful hedging. But now it's time to set analysis aside and return to what matters most: not theory but prayer, not speculation but devotion, not models but mysteries.

**Take a rosary in your hands.**

### The Geometry of the Ave Maria

Form it into the shape of infinity—the lemniscate that has structured this contemplation. Loop the beads into that ancient symbol: ∞. To hold the shape, notice what must happen: the crucifix hangs perpendicular to the curve. Not traveling along the beads but intersecting from beyond. Orthogonal to every point. Equidistant from all.

This is not speculation. This is a visible sign you can hold in your hands. Hold it. See it. The crucifix relates to every bead—every mystery, every moment the decades represent—from the perpendicular dimension. Not one point among others but the crossing where eternity pierced time, where the Word became flesh, where sacrifice opened what sin had closed.

Every mystery on the rosary—Annunciation and Crucifixion, Nativity and Resurrection, Visitation and Pentecost—stands in equal relation to the Christ who hangs perpendicular to them all. No mystery is geometrically closer than another. Each moment of salvation history accesses the same crossing point. The joyful, the sorrowful, the glorious, the luminous —all meet where vertical intersects horizontal, where divine breaks through human, where eternity touches time.

What we have explored through chapters of contemplation, the rosary demonstrates through physical form. The faithful who pray the decades while holding this shape participate in what the lemniscate pictures: temporal moments grounded in eternal presence, all equally accessible from the intersection where Christ died and rose.

The Church knew this long before geometric models. Centuries of prayer wore the truth into beads and string. We don't need speculation to access the crossing point—we need the devotions the saints gave us, the prayers tested by generations, the mysteries contemplated by the Mother who stood at the Cross when the threshold opened.

**Every Moment the Center**

Here is the culminating insight, the one that makes all speculation worthwhile:

Through the lemniscate, there is not a single point—not a day, not a moment in your life—that is more important than another for accessing the crossing point.

We experience watershed events: Baptism, Reconciliation, First Communion, Confirmation, Marriage, Ordination, Anointing of the sick—conversion moments that shake the soul. These matter sacramentally. They mark us. They change us. We remember them.

But geometrically—structurally—every moment along the curve stands in equal relation to the crossing point, in the sense that each has the same potential access. That Tuesday morning washing dishes. That quiet hour before dawn. That unremarkable afternoon when nothing seemed to happen. Every instant has the same access to eternal present that the most dramatic conversion or profound mystical experience provides.

Every moment is the center of the lemniscate. *Every breath you take occurs at the point where time can meet eternity*. Every heartbeat happens at a position along the curve with full access to the crossing Christ opened. No moment is closer to God than any other; all are equally grounded in the dimension that sustains temporal succession.

This is why Brother Lawrence could practice the presence of God while scrubbing pots in the monastery kitchen. Why contemplatives find eternity in ordinary hours. Why the liturgy sanctifies not just feast days but every day, praying the hours seven times daily, making the whole of life —waking and sleeping, working and resting, suffering and celebrating—occasions for dwelling at the threshold.

We don't wait for special moments to access the crossing point. Every moment invites us. Every instant offers what the most dramatic spiritual experience provides. The

question isn't which moments matter but whether we will receive what every moment offers.

The present moment—this one, right now—stands at the center. Not because you're reading about time. Not because you've understood a theory. But because *every* present moment stands at the center, and you can only ever be in one present moment, which means you are always—right now—at the center, where the crossing point is accessible, where Christ intersects your temporal existence with eternal presence.

Stop rushing toward future moments hoping they'll be more important. Stop regretting past moments thinking you missed your chance. The center is here. The crossing point is now. Every now. Always now. Perpetually accessible, never exhausted, forever offered.

**Through Mary to Christ: The Fiat That Opened the Way**

But how did the crossing point become accessible? How did eternity gain entrance into our temporal exile?

Through a young woman's yes.

"Let it be done to me according to your word" (Luke 1:38). Mary's *fiat* opened the door through which the Word entered the world. Her consent —free, uncoerced, total— made the Incarnation possible. Not that God needed permission, but that God chose to work through creaturely cooperation, and Mary cooperated perfectly.

The Church has recognized across centuries what Vatican II affirmed: Mary's unique participation in Christ's redemptive work (Lumen Gentium 61). Not as independent co-redeemer equal to Christ, but as the creature who participated most fully in what He alone accomplished. Her maternal *yes* opened the way for His entrance. Her presence at the Cross united her suffering with His. Her maternal intercession continues to mediate the graces He won.

The lemniscate framework illuminates this: Christ intersects the temporal curve orthogonally as God-made-flesh. Mary, the first and most perfect disciple, shows how creatures can participate in that intersection through grace. She is the threshold figure, the doorway through which Divinity entered, a creaturely image of the crossing point itself.

Traditional titles witness to this: Janua Coeli—Gate of Heaven. The door through which we pass to reach the crossing Christ opened. Not because she is divine (she is not), but because she participated so completely in His mission that to approach Him is to pass through her maternal mediation.

The rosary makes this tangible. We don't just contemplate Christ's mysteries; we contemplate them *with Mary*, whose voice echoes through the decades: "Hail Mary, full of Grace." We hold the beads she held. We ponder the mysteries she pondered first. We approach the perpendicular Christ through the one who carried Him in her womb, stood at His Cross, and received the Spirit at Pentecost.

Mary doesn't stand between us and Christ as obstacle. She stands at the crossing point as guide, showing us how

creatures access what Christ opened, modeling the receptivity that lets grace work, embodying the *Fiat* that every Christian must ultimately speak: "Let it be done according to your word."

**From Speculation to Beads**

This is where all theological speculation should end: not with equations proven but with mysteries pondered.

Not with geometric necessity but with beads counted.

Not with models defended but with the Mother honored.

Not with philosophical coherence but with prayers whispered.

The lemniscate offered one way to think about time's structure. But the rosary offers something infinitely better: a way to pray through time's mysteries while holding, literally in your hands, the shape of their relation to the One who transcends them all.

We don't need geometric models to access the crossing point. We need what the Church has always given us: Scripture and sacraments, liturgy and prayer, the communion of saints and the intercession of the Mother. These work whether we understand their geometry or not. They've formed saints for two millennia without need of lemniscates.

But for those who wonder, for those who ask how prayers reach across centuries, how sacraments make present what happened once, how liturgy participates in eternal worship, how resurrection bodies can be both continuous and transformed—for those who seek understanding alongside faith—perhaps the geometric picture serves.

Perhaps it helps some see what they already believed: that every moment matters equally, that Christ is perpendicular to all our temporal wandering, that Mary's cooperation opened the way, that the beads we count trace the structure of salvation, that the mysteries we ponder reveal how eternity intersects time not occasionally but perpetually, not somewhere else but right here, not later but now.

**The Invitation**

So take your rosary. Form the lemniscate. Let the crucifix hang perpendicular, orthogonal to every bead, equidistant from all the mysteries you'll contemplate.

And pray.

Not because you understand the geometry but because the Mother calls.

Not because the model is proven but because the mysteries are true.

Not because speculation clarifies but because prayer transforms.

Pray the Joyful Mysteries and know that the Annunciation stands in equal relation to the crossing point as the Crucifixion. Pray the Sorrowful Mysteries and feel how the perpendicular Christ relates to His own suffering from both temporal and eternal dimensions simultaneously. Pray the Glorious Mysteries and glimpse how Resurrection opens dimensional access beyond what entropy permits. Pray the Luminous Mysteries and recognize how ordinary moments—water becoming wine, bread multiplied, Transfiguration glimpsed, the institution of the Eucharist—reveal the crossing point's perpetual presence.

The mysteries aren't distant events we remember. They are windows into the structure of reality, showing how eternity keeps breaking into time, how the crossing point Christ opened remains perpetually accessible, how every moment participates in the pattern the beads trace.

And as you pray, as you let the beads slip through your fingers decade by decade, mystery by mystery, know this:

You are not remembering past moments hoping they'll affect your present.

You are standing at the center—which is everywhere and always—accessing the crossing point—which never closes—through the Mother's intercession —which never ceases—reaching toward the Christ who hangs perpendicular to all your temporal existence, equidistant from every moment, eternally present, infinitely accessible.

The lemniscate was always just a picture. The rosary is the prayer.

The speculation was always just a tool. The mystery is the reality.

The model was always just a map. The beads are a way the Church gives.

**Final Word**

"Time, where are we, you and I, I who live in you, and you that do not exist?" Alfonso Cortés asked.

The answer the Church gives is not philosophical but devotional: We are where the Mother leads us. To the Christ who is perpendicular to all our temporal wandering. To the crossing point that remains forever open. To the eternal present that grounds every fleeting now.

We live in time, yes. But time exists in God. And through the Mother's guidance, through the beads we count, through the mysteries we ponder, through the perpendicular Christ we approach, we access what time cannot contain: the eternal love that created us, redeemed us, and calls us home.

The lemniscate closes. The speculation ends. The rosary remains.

Pray it. Hold it. Let it teach you what geometry can only glimpse: that every moment is the center, that Mary leads to Christ, that the crossing point is here, that eternity breaks through now.

The rest is mystery. The rest is prayer. The rest is love.

**Ave Maria, gratia plena, Dominus tecum**

**The Last Word About the Last Word**

The goal was never the diagram.

The goal was always the crossing point.

And the crossing point is not an idea.

**It is a Person. It is Him.**

**BIBLIOGRAPHY**

**Sacred Scripture**

All Scripture quotations are from the New Revised Standard Version (NRSV) unless otherwise noted.

Biblical citations occasionally reference original Greek terminology (Nestle-Aland 28th ed.) where linguistic nuance informs theological interpretation.

**Magisterial Documents**

**Catechism of the Catholic Church (CCC).** 2nd ed. Vatican: Libreria Editrice Vaticana, 1997.

- Cited: CCC 302-310 (Providence), CCC 338 (Creation of time), CCC 964-970 (Mary's role), CCC 988-1004 (Resurrection), CCC 1085 (Liturgy and eternal present), CCC 1131 (Sacraments as efficacious signs), CCC 1367 (Eucharistic sacrifice)

**Second Vatican Council.** Dei Verbum (Dogmatic Constitution on Divine Revelation). November 18, 1965.

- Referenced for relationship between Scripture, Tradition, and theological interpretation

**Second Vatican Council.** Lumen Gentium (Dogmatic Constitution on the Church). November 21, 1964.

- Cited: LG 61 (Mary's cooperation in salvation)

**Second Vatican Council.** Sacrosanctum Concilium (Constitution on the Sacred Liturgy). December 4, 1963.

- Referenced for liturgy as participation in heavenly reality

**Benedict XVI.** Spe Salvi (Encyclical Letter on Christian Hope). November 30, 2007.

- Referenced for eternity as transformed temporality rather than timeless abstraction

**Council of Trent.** Decree on the Most Holy Sacrifice of the Mass, Session XXII. September 17, 1562.

- Referenced for sacramental presence

**Patristic and Medieval Sources**

**Cyprian of Carthage.** *Ad Donatum (To Donatus).* In *Ante-Nicene Fathers*, Vol. 5. Buffalo, NY: Christian Literature Publishing Co., 1886.

- Referenced for reflections on recurring moral and cultural disorder across historical epochs.

**Irenaeus of Lyons.** Against Heresies. Translated by Dominic J. Unger. New York: Paulist Press, 1992.

- Referenced for recapitulation (anakephalaiosis) in Christ

**Athanasius of Alexandria.** On the Incarnation. Translated by John Behr. Yonkers, NY: St Vladimir's Seminary Press, 2011.

- Referenced for Incarnation theology

**Cyril of Alexandria.** On the Unity of Christ. Translated by John Anthony McGuckin. Yonkers, NY: St Vladimir's Seminary Press, 1995.

- Referenced for Christology

**Maximus the Confessor.** Ambigua. Translated by Nicholas Constas. Cambridge, MA: Harvard University Press, 2014.

- Referenced for Christ as intersection of created and uncreated realities

**Augustine of Hippo.** Confessions. Translated by Henry Chadwick. Oxford: Oxford University Press, 1991.

- Cited: Book XI (On time and eternity)

- Cited: Book I.1 ("You have made us for yourself, O Lord...")

**Anicius Manlius Severinus Boethius.** The Consolation of Philosophy. Translated by Victor Watts. London: Penguin Classics, 1999.

- Referenced for eternal present

**Thomas Aquinas.** Summa Theologica. Translated by Fathers of the English Dominican Province. New York: Benziger Bros., 1947.

- Referenced for divine eternity and temporal creation

**Spiritual and Devotional Sources**

**Teresa of Avila.** The Interior Castle. Translated by Kieran Kavanaugh and Otilio Rodriguez. Washington, DC: ICS Publications, 1980.

- Cited for contemplative prayer as movement toward divine center

**John of the Cross.** The Ascent of Mount Carmel. Translated by Kieran Kavanaugh and Otilio Rodriguez. Washington, DC: ICS Publications, 1991.

- Cited for spiritual ascent imagery

**Brother Lawrence of the Resurrection.** The Practice of the Presence of God. Translated by John J. Delaney. New York: Image Books, 1977.

- Cited for present-moment attentiveness to God

**Jean Pierre de Caussade.** Abandonment to Divine Providence. Translated by John Beevers. New York: Image Books, 1975.

- Referenced for sanctification of the present moment

**Ignatius of Loyola.** The Spiritual Exercises. Translated by Louis J. Puhl. Chicago: Loyola Press, 1951.

- Referenced for Ignatian contemplation

**Alphonsous Maria de Liguori.** Preparation for Death. Brooklyn: Redemptorist Fathers, 1926.

- Cited for "forever, never" meditation on hell

**The Philokalia: The Complete Text.** Compiled by St. Nikodimos of the Holy Mountain and St. Makarios of Corinth. Translated by G.E.H. Palmer, Philip Sherrard, and Kallistos Ware. 4 vols. London: Faber and Faber, 1979–1995.

- Referenced for Jesus Prayer tradition

**Modern Theological and Philosophical Sources**

**Joseph Ratzinger (Benedict XVI).** The Spirit of the Liturgy. San Francisco: Ignatius Press, 2000.

- Referenced for liturgy transcending linear temporality

**Hans Urs von Balthasar.** Theo-Drama, Vol. V: The Last Act. San Francisco: Ignatius Press, 1998.

- Referenced for eschatological consummation and temporal fulfillment in Christ

**Karl Rahner.** Foundations of Christian Faith. New York: Crossroad, 1978.

- Referenced for transcendental experience of grace within temporality

**Frithjof Schuon.** Spiritual Perspectives and Human Facts. Translated by Macleod Matheson. London: Faber and Faber, 1953.

- Cited for river/bank imagery regarding Fall

**C.S. Lewis.** The Great Divorce. New York: HarperOne, 1946.

- Cited for "gates of hell locked from inside"

**C.S. Lewis**. Mere Christianity. New York: HarperOne, 1952.

- Referenced for theological accessibility

Friedrich Nietzsche. The Gay Science (Die fröhliche Wissenschaft). Translated by Walter Kaufmann. New York: Vintage Books, 1974.
— Referenced for reflections on recurrence, existential temporality, and the thought experiment of eternal return.

**Literary and Poetic Sources**

**Alfonso Cortés**. "La canción del espacio ("The Song of Space"). In Poemas. Managua: Editorial Nuevos Horizontes, 1931.

- Cited: "Time, where are we, you and I, I who live in you, and you that do not exist?"

- Note: Cortés (1893-1969) was a Nicaraguan poet whose metaphysical poetry explores themes of time, space, and existence.

**T.S. Eliot**. Four Quartets. London: Faber and Faber, 1943.

- Referenced for "the still point of the turning world"

**Philosophy of Time**

**J.M.E. McTaggart**. "The Unreality of Time." Mind 17, no. 68 (1908): 457–474.

- Referenced for A-series and B-series temporal analysis

William Lane Craig. Time and Eternity: Exploring God's Relationship to Time*. Wheaton: Crossway, 2001.

- Referenced for theological philosophy of time

**Scientific and Mathematical Sources**

**Jacob Bernoulli**. Opera Omnia. Geneva, 1744.

- Referenced for original mathematical description of the lemniscate

**E.H. Lockwood**. A Book of Curves. Cambridge: Cambridge University Press, 1961.

- Referenced for geometric properties of the lemniscate

**Sean Carroll**. From Eternity to Here: The Quest for the Ultimate Theory of Time. New York: Dutton, 2010.

- Referenced for entropy and arrow of time

**Ian Goodfellow; Yoshua Bengio; and Aaron Courville**. Deep Learning. Cambridge, MA: MIT Press, 2016.

- Referenced for iterative learning and epochal convergence

**Albert Einstein**. Attributed quote: "Not everything that counts can be counted, and not everything that can be counted counts."

- Note: While this quote is widely attributed to Einstein, its exact origin is uncertain. The sentiment aligns with Einstein's known views on the limits of empiricism.

**Wes McKinney**. Python for Data Analysis. 3rd ed. Sebastopol, CA: O'Reilly Media, 2022.

- Referenced in context of computational learning and epochs

**Additional References**

**The Rule of St. Benedict**. Translated by Timothy Fry. New York: Vintage Books, 1998.

- Cited for monastic hours and structured prayer

**The Roman Missal**. 3rd typical ed. Washington, DC: United States Conference of Catholic Bishops, 2011.

- Referenced for liturgical practice

**General Instruction of the Roman Missal (GIRM)**. In The Roman Missal, 3rd typical ed., 2011.

- Referenced for liturgical theology

**Note on Sources**

This work draws primarily on Scripture, Church teaching, and the contemplative tradition. Contemporary theological speculation is offered in service of these foundational sources, not as replacement for them. Where sources are cited, they illuminate or support theological points already grounded in revelation and tradition.

The geometric framework itself (lemniscate model) is original to this work and represents a *Theologoumenon*, theological opinion offered for contemplation, subject to the Church's judgment, and open to correction or rejection.